



STIC Search Report

EIC 1700

STIC Database Tracking Number: 96509

TO: Camie Thompson
Location: CP3 11B21
Art Unit : 1774
June 13, 2003

Case Serial Number: 10009021

From: Kathleen Fuller
Location: EIC 1700
CP3/4 3D62
Phone: 308-4290

Kathleen.Fuller@uspto.gov

Search Notes

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Camille S. Thompson Examiner #: 79244 Date: 6/12/03
Art Unit: 1774 Phone Number 30 54488 Serial Number: 10/1009021
Mail Box and Bldg/Room Location: CP311B/28 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Organic electroluminescent element
Inventors (please provide full names): Tadashi Ishibashi; Hori Ichimura; Naoyuki Ueda; Shinichiro Tamura
Earliest Priority Filing Date: 4/7/2000

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please do a CAS search for formulas 1-7.

Also do a search on claims 1-55

*Thanks,
Camille*

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>K. Fuller</u>	NA Sequence (#) _____	STN <u>✓</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>4</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>6/13/03</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>30</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>45</u>	Other _____	Other (specify) _____

subset search

EIC1700

Search Results

Feedback Form (Optional)



Scientific & Technical Information Center

The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact *the EIC searcher* who conducted the search *or contact*:

Kathleen Fuller, Team Leader, 308-4290, CP3/4 3D62

Voluntary Results Feedback Form

➤ *I am an examiner in Workgroup:* *Example:*

➤ *Relevant prior art found, search results used as follows:*

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ *Relevant prior art not found:*

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Search results were not useful in determining patentability or understanding the invention.

Other Comments:

Drop off completed forms in CP3/4 - 3D62 .

=> FILE REG

FILE 'REGISTRY' ENTERED AT 10:15:34 ON 13 JUN 2003
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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES: 11 JUN 2003 HIGHEST RN 529474-19-9
DICTIONARY FILE UPDATES: 11 JUN 2003 HIGHEST RN 529474-19-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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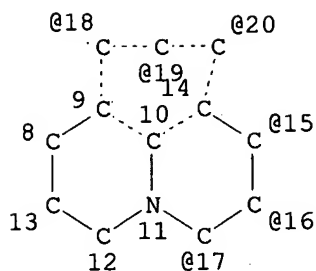
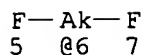
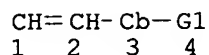
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FILE COVERS 1907 - 13 Jun 2003 VOL 138 ISS 25
FILE LAST UPDATED: 12 Jun 2003 (20030612/ED)

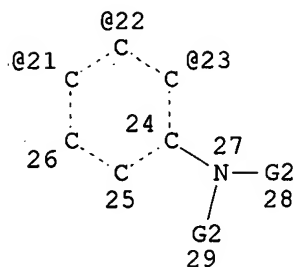
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=> D QUE

L3 STR



G3 30



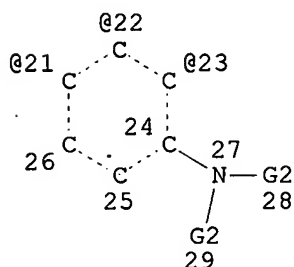
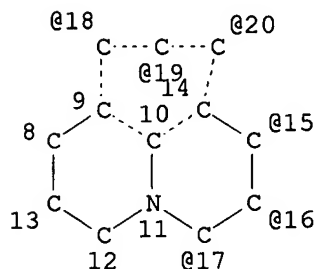
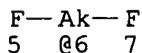
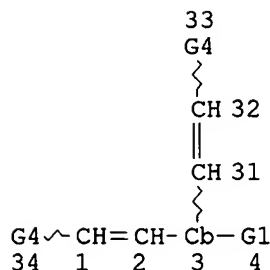
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from query*

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DEFAULT MLEVEL IS ATOM
MLEVEL IS CLASS AT 18 19 20
GGCAT IS UNS AT 3
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS UNLIMITED AT 18 19 20

GRAPH ATTRIBUTES:
RING(S) ARE-ISOLATED OR EMBEDDED
NUMBER OF NODES IS 30

STEREO ATTRIBUTES: NONE
L5 SCR 1839
L9 SCR 1016
L12 9059 SEA FILE=REGISTRY SSS FUL L3 AND L5 AND L9
L18 STR

*Subset search
with more exact
compound*



*198 structures
found*

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 VAR G4=18/19/20/15/16/17/21/22/23
 NODE ATTRIBUTES:
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 MLEVEL IS CLASS AT 18 19 20
 GGCAT IS UNS AT 3
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS UNLIMITED AT 18 19 20

GRAPH ATTRIBUTES:
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 NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE

L20 198 SEA FILE=REGISTRY SUB=L12 SSS FUL L18
 L21 63 SEA FILE=HCAPLUS ABB=ON L20
 L22 27 SEA FILE=HCAPLUS ABB=ON L21 AND (EL OR ?LUMINES?)

=> D. L22 ALL 1-27 HITSTR

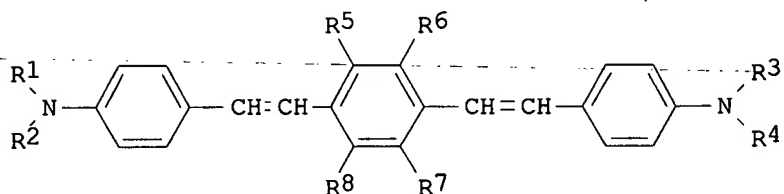
*27 CA references from the
structures with utility*

L22 ANSWER 1 OF 27 HCAPLUS COPYRIGHT 2003 ACS
 AN 2003:150556 HCAPLUS
 DN 138:189408
 TI Fluorescent bis(aminostyryl)benzene dyes and intermediates and their
 production
 IN Ichimura, Mari; Tamura, Shinichiro; Ishibashi, Tadashi; Takada, Ichinori

PA Sony Corporation, Japan
 SO U.S., 125 pp., Cont.-in-part of U.S. Ser. No. 455,724.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM C07C205-35
 ICS C07C209-78; C07C217-76; C07C253-30; C07C255-60
 NCL 558418000; 558419000; 558421000; 564429000; 564434000
 CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
 Section cross-reference(s): 25, 76

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6525212	B1	20030225	US 2000-704960	20001102
	JP 2000230132	A2	20000822	JP 1999-312069	19991102
	US 6337167	B1	20020108	US 1999-455724	19991206
	US 2003060652	A1	20030327	US 2002-228019	20020826
	US 2003069437	A1	20030410	US 2002-227671	20020826
	US 2003073863	A1	20030417	US 2002-227711	20020826
PRAI	JP 1998-347561	A	19981207		
	JP 1999-312069	A	19991102		
	US 1999-455724	A2	19991206		
	US 2000-704960	A3	20001102		
OS	MARPAT 138:189408				
GI					



I

AB Fluorescent bis(aminostyryl)benzene dyes (I; R2, R3 = unsubstituted aryl; R1, R4 = substituted aryl; at least one of R5, R6, R7, R8 is CN or NO2 and the rest are H, CN, NO2, and/or H). I are produced from suitable intermediates and are useful in **electroluminescent** applications. Intermediates of the bis(aminostyryl)benzene compd. are also described. In an example, Et3PO4 was condensed (2:1) with 2,5-bis(bromomethyl)terephthalonitrile to give a product which was condensed (1:2) with 4-[N-(4-ethoxyphenyl)-N-phenylamino]benzaldehyde to provide a fluorescent dye.

ST fluorescent aminostyryl dye prodn **electroluminescent** material

IT **Luminescent** substances
 (electroluminescent; prodn. of fluorescent bis(aminostyryl)benzene dyes for **electroluminescent** applications)

IT Dyes
 (intermediates; in prodn. of fluorescent bis(aminostyryl)benzene dyes for **electroluminescent** applications)

IT Fluorescent dyes
 (prodn. of fluorescent bis(aminostyryl)benzene dyes for **electroluminescent** applications)

IT 288626-90-4 288626-91-5 288626-92-6
288626-93-7
RL: TEM (Technical or engineered material use); USES (Uses)
(dye; fluorescent bis(aminostyryl)benzene dyes for
electroluminescent applications)

IT 251101-60-7P 251349-04-9P 253868-17-6P
253868-91-6P 288626-78-8P 288626-79-9P
288626-80-2P 288626-81-3P 288626-82-4P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(dye; prodn. of fluorescent bis(aminostyryl)benzene dyes for
electroluminescent applications)

IT 4316-53-4P, 4-Methyltriphenylamine 4432-94-4P 20440-94-2P
20440-95-3P 36809-23-1P 42906-19-4P 60876-70-2P 64746-04-9P
89115-20-8P 89115-21-9P 117029-71-7P 288626-95-9P 288626-97-1P
288626-98-2P 499144-21-7P 499144-24-0P 499144-30-8P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate; prodn. of fluorescent bis(aminostyryl)benzene dyes for
electroluminescent applications)

IT 499144-37-5P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(orange dye; prodn. of fluorescent bis(aminostyryl)benzene dyes for
electroluminescent applications)

IT 4316-52-3P
RL: IMF (Industrial manufacture); PREP (Preparation)
(prodn. of fluorescent bis(aminostyryl)benzene dyes for
electroluminescent applications)

IT 62-53-3, Aniline, reactions 68-12-2, Dimethylformamide, reactions
78-40-0, Triethyl phosphate 92-66-0, 4-Bromobiphenyl 101-70-2,
Bis(4-methoxyphenyl)amine 115-11-7, Isobutylene, reactions 122-39-4,
Diphenylamine, reactions 128-08-5, N-Bromosuccinimide 540-38-5,
4-Iodophenol 586-77-6, 4-Bromo-N,N-dimethylaniline 591-50-4,
Iodobenzene 603-35-0, Triphenylphosphine, reactions 620-93-9,
Di-p-tolylamine 624-31-7, 4-Iodotoluene 699-08-1 3972-65-4,
1-Bromo-4-tert-butylbenzene 4181-05-9, 4-(Diphenylamino)benzaldehyde
87755-82-6 105114-53-2 131660-61-2 288626-94-8 288626-96-0
288627-04-3 314270-67-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; prodn. of fluorescent bis(aminostyryl)benzene dyes
for electroluminescent applications)

IT 288626-83-5P 288626-84-6P 288626-85-7P
288626-86-8P 288626-87-9P 288626-88-0P
288626-89-1P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(yellowish orange dye; prodn. of fluorescent bis(aminostyryl)benzene
dyes for electroluminescent applications)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; JP 11273859 A2 1998 HCAPLUS
(2) Kawaguchi; US 6022998 A 2000 HCAPLUS
(3) Stecher, P; The Merck Index, eighth edition 1968, P1226

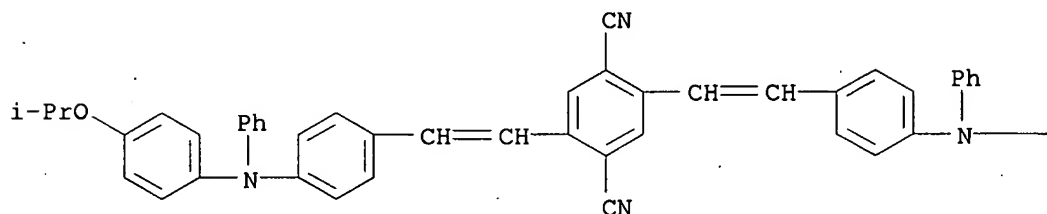
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RL: TEM (Technical or engineered material use); USES (Uses)
(dye; fluorescent bis(aminostyryl)benzene dyes for

electroluminescent applications)

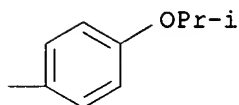
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CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[[4-(1-methylethoxy)phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



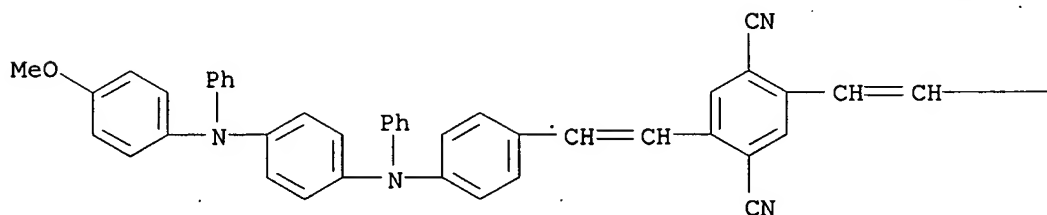
PAGE 1-B



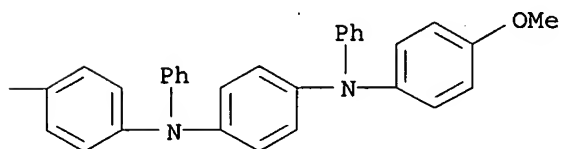
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PAGE 1-A



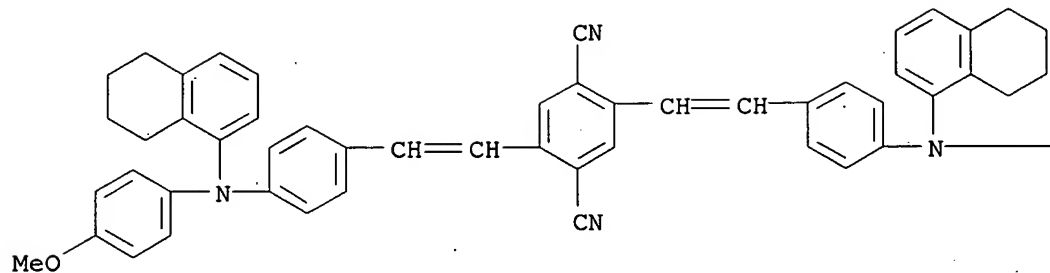
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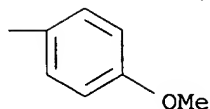
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PAGE 1-A

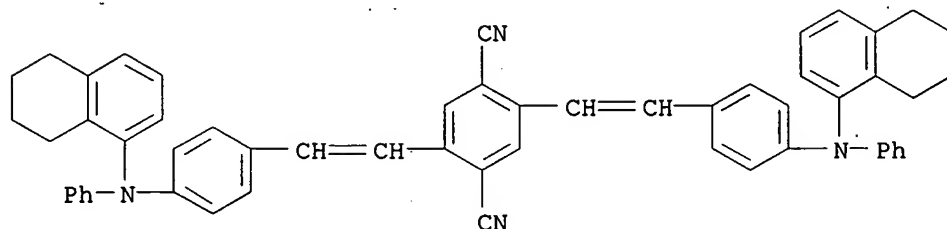


PAGE 1-B



RN 288626-93-7 HCAPLUS

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IT 251101-60-7P 251349-04-9P 253868-17-6P

253868-91-6P 288626-78-8P 288626-79-9P

288626-80-2P 288626-81-3P 288626-82-4P

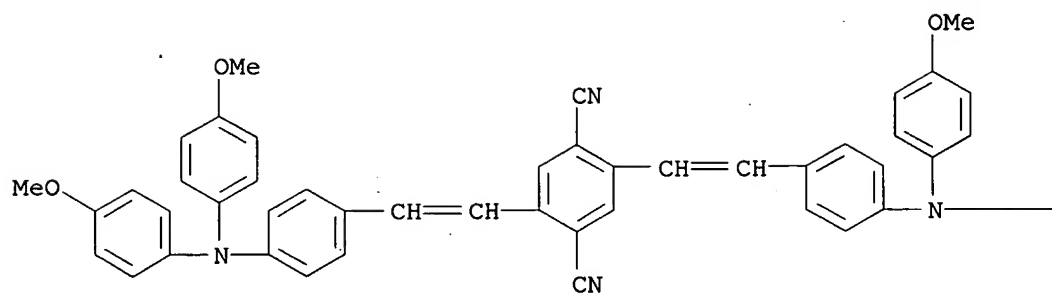
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dye; prodn. of fluorescent bis(aminostyryl)benzene dyes for electroluminescent applications)

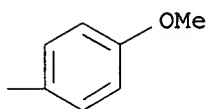
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PAGE 1-A

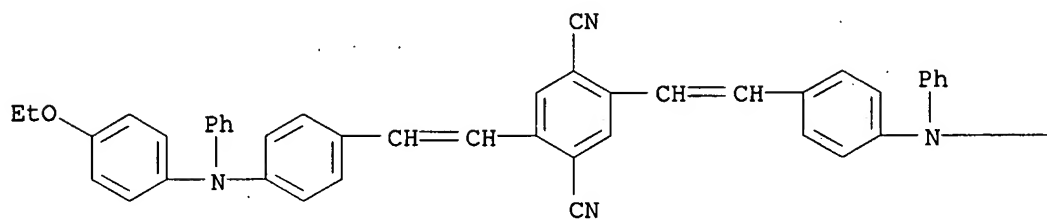


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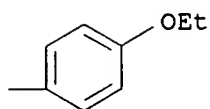


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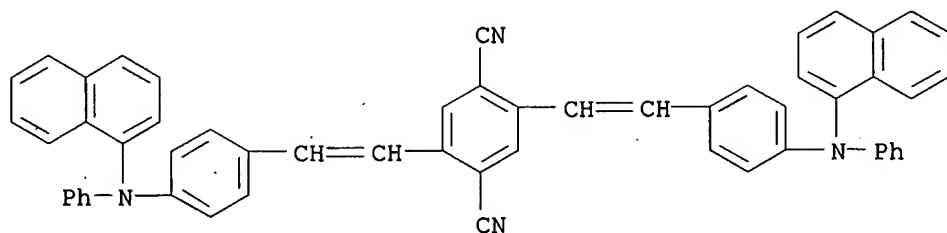
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PAGE 1-B

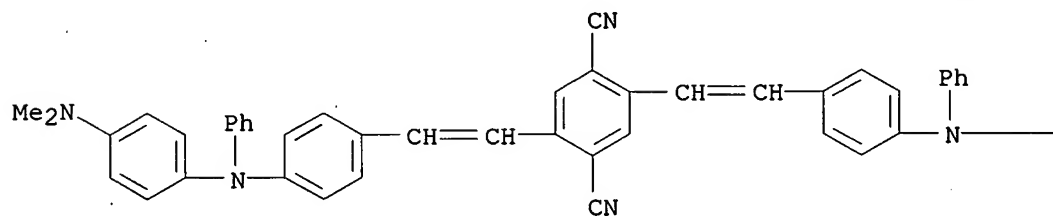


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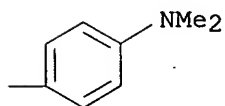


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PAGE 1-A

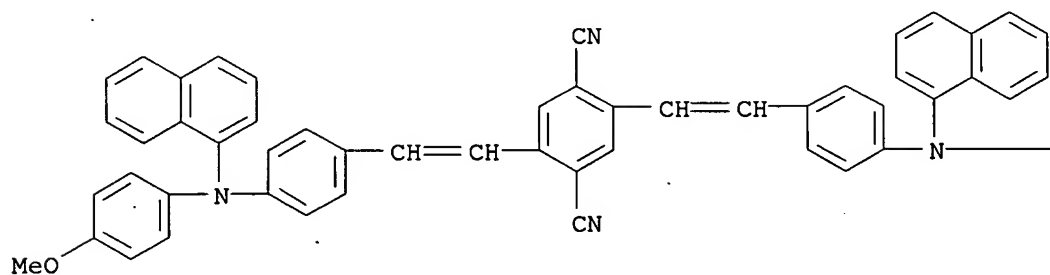


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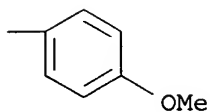


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PAGE 1-A

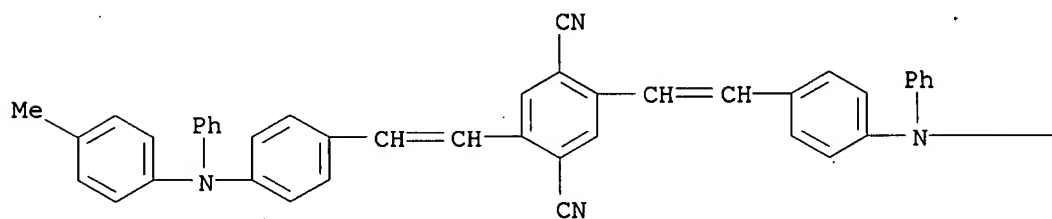


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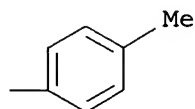


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PAGE 1-A

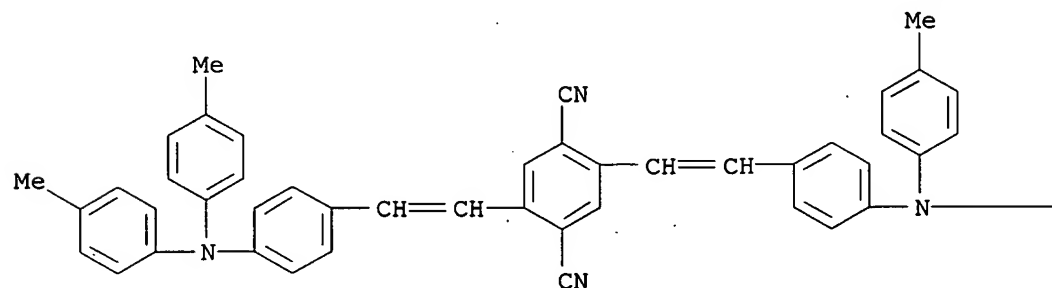


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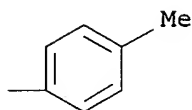


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PAGE 1-A

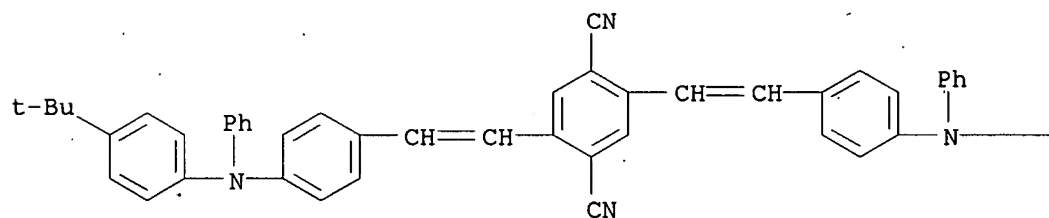


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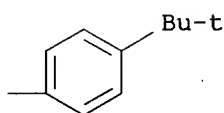


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PAGE 1-A

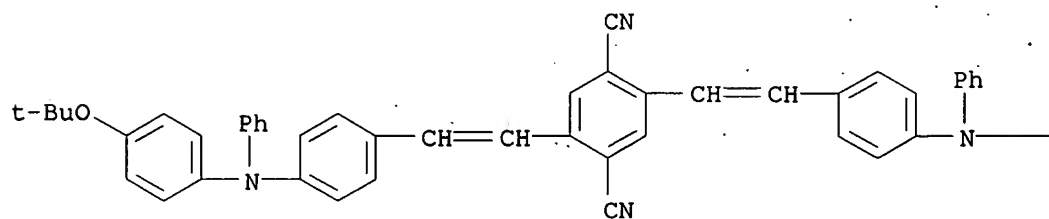


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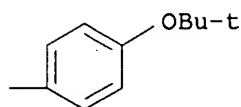


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 CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[[4-(1,1-dimethylethoxy)phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT 499144-37-5P

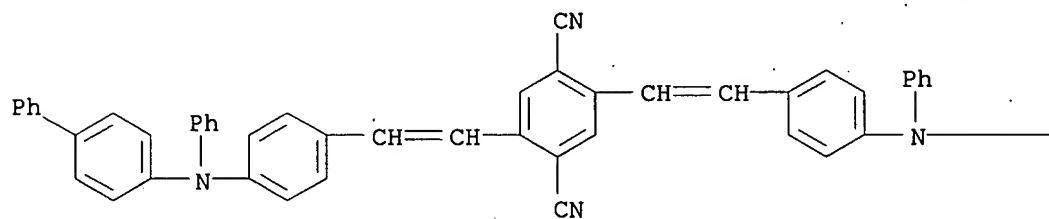
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(orange dye; prodn. of fluorescent bis(aminostyryl)benzene dyes for **electroluminescent** applications)

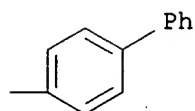
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CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-([1,1'-biphenyl]-4-ylphenylamino)phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT 288626-83-5P 288626-84-6P 288626-85-7P

288626-86-8P 288626-87-9P 288626-88-0P

288626-89-1P

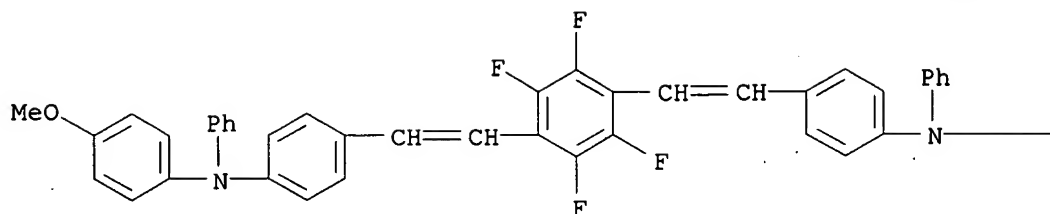
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(yellowish orange dye; prodn. of fluorescent bis(aminostyryl)benzene dyes for **electroluminescent** applications)

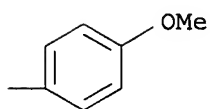
RN 288626-83-5 HCAPLUS

CN Benzenamine, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)di-2,1-ethenediyl]bis[N-(4-methoxyphenyl)-N-phenyl- (9CI) (CA INDEX NAME)

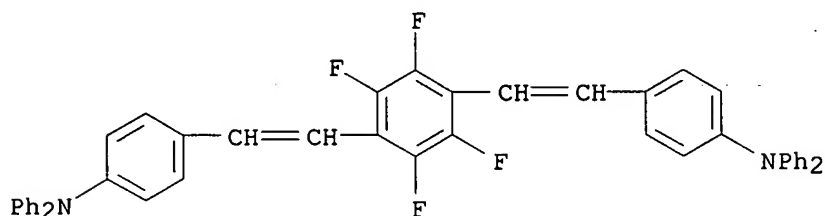
PAGE 1-A



PAGE 1-B

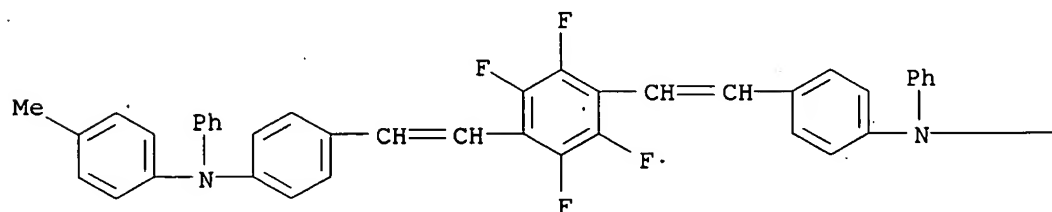


RN 288626-84-6 HCAPLUS
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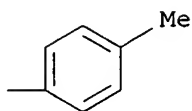


RN 288626-85-7 HCAPLUS
 CN Benzenamine, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)di-2,1-ethenediyl]bis[N-(4-methylphenyl)-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A.

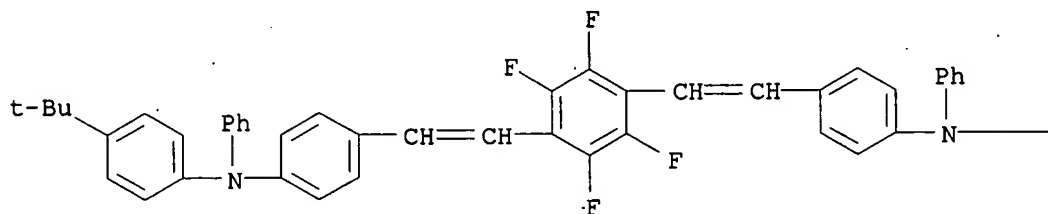


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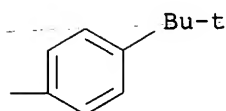


RN 288626-86-8 HCAPLUS
 CN Benzenamine, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)di-2,1-ethenediyl]bis[N-[4-(1,1-dimethylethyl)phenyl]-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

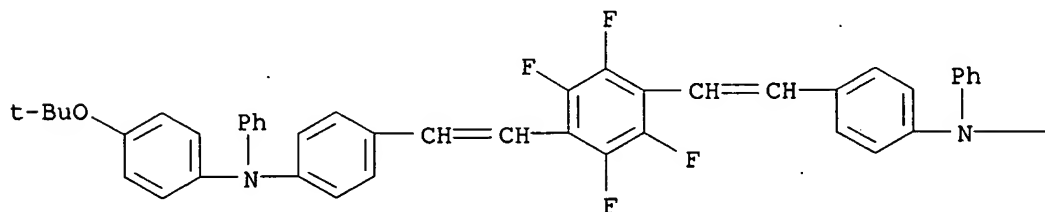


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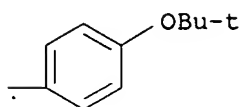


RN 288626-87-9 HCAPLUS
 CN Benzenamine, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)di-2,1-ethenediyl]bis[N-[4-(1,1-dimethylethoxy)phenyl]-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

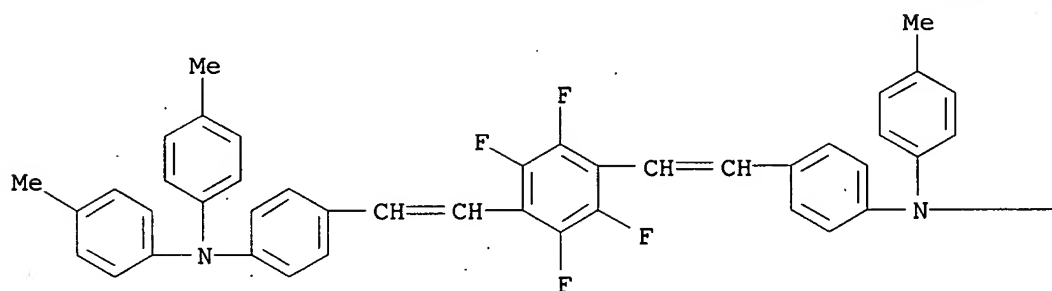


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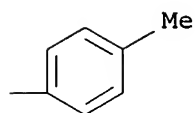


RN 288626-88-0 HCAPLUS
 CN Benzenamine, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)di-2,1-ethenediyl]bis[N,N-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

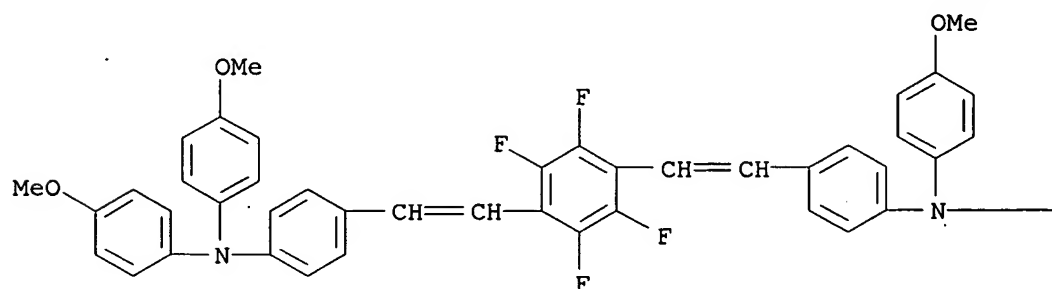


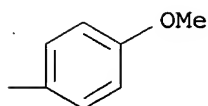
PAGE 1-B



RN 288626-89-1 HCAPLUS
 CN Benzenamine, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)di-2,1-ethenediyl]bis[N,N-bis(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A





L22 ANSWER 2 OF 27 HCAPLUS COPYRIGHT 2003 ACS
 AN 2003:96340 HCAPLUS
 DN 138:144766
 TI Polymeric fluorescent substance and polymer light-emitting device using the same
 IN Doi, Shuji; Noguchi, Takanobu; Tsubata, Yoshiaki
 PA Sumitomo Chemical Company, Limited, Japan
 SO Eur. Pat. Appl., 31 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM C09K011-06
 CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 38, 74, 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1281745	A1	20030205	EP 2002-255267	20020729
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	US 2003064247	A1	20030403	US 2002-206880	20020729
	JP 2003155476	A2	20030530	JP 2002-219296	20020729
PRAI	JP 2001-229306	A	20010730		
AB	Polymeric fluorescent substances exhibiting visible fluorescence in the solid state and having a polystyrene reduced no. av. mol. wt. of 103-108 are described which are formed from arylene repeating units, optionally along with divalent heterocyclic repeating units, with at least some of the arylene repeating units having substituents including triarylamine groups. Light-emitting devices and displays employing the polymers, and liq.-crystal displays employing the light-emitting devices as backlights, are also described.				
ST	electroluminescent device fluorescent polymer arylamine substituent; fluorescent polymer arylamine substituent				
IT	Electroluminescent devices (displays; fluorescent polymers from monomers with triarylamine substituents and light-emitting devices using them)				
IT	Luminescent screens (electroluminescent ; fluorescent polymers from monomers with triarylamine substituents and light-emitting devices using them)				
IT	Electroluminescent devices Fluorescent substances (fluorescent polymers from monomers with triarylamine substituents and light-emitting devices using them)				
IT	494775-65-4P	494775-67-6P	494775-68-7P	494775-69-8P	

494775-70-1P 494775-72-3P 494775-73-4P 494775-74-5P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(fluorescent polymers from monomers with triarylamine substituents and light-emitting devices using them)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Bernius, M; THIN SOLID FILMS 2000, V363, P55 HCAPLUS

(2) Campbell, S; US 6107452 A 2000 HCAPLUS

(3) Dow Chemical Co; WO 0046321 A 2000 HCAPLUS

(4) Inbasekaran, M; US 6255449 B1 2001 HCAPLUS

(5) Robert, T; WO 0055927 A 2000

IT 494775-65-4P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(fluorescent polymers from monomers with triarylamine substituents and light-emitting devices using them)

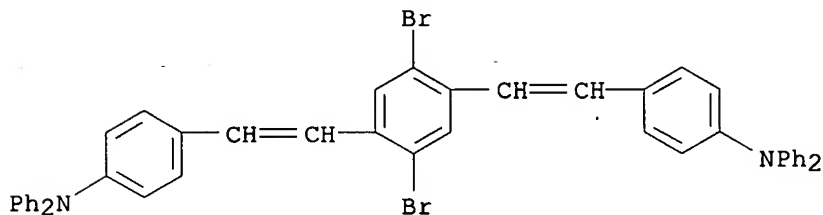
RN 494775-65-4 HCAPLUS

CN Benzenamine, 4,4'-[(2,5-dibromo-1,4-phenylene)di-2,1-ethenediyl]bis[N,N-diphenyl-, polymer with 2,7-dibromo-9,9-dioctyl-9H-fluorene (9CI) (CA INDEX NAME)

CM 1

CRN 214626-73-0

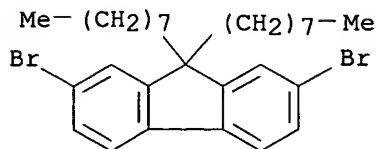
CMF C46 H34 Br2 N2



CM 2

CRN 198964-46-4

CMF C29 H40 Br2



L22 ANSWER 3 OF 27 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:656370 HCAPLUS

DN 137:192554

TI Vapor phase deposition of organic material thin film, its apparatus, and fabrication of organic **electroluminescent** device with the thin

film

IN Tamura, Shinichiro; Ishibashi, Tadashi
 PA Sony Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM H05B033-10
 ICS C23C014-12; C23C014-24; H05B033-14; H05B033-22
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002246175	A2	20020830	JP 2001-39408	20010216
PRAI	JP 2001-39408		20010216		

AB The invention provides a process and app. for deposition of org. material thin films having good characteristics from a plurality of materials which behave differently under heat by optimizing the conditions for deposition for each raw materials. In the deposition of a 1st material which evaps. after being melted under heat and/of a 2nd material which sublimates under heat, a 1st container having a 1st opening having the same or larger size than the surface area of the contained, said org. material, the flying angle of the vapor of the org. material from the opening being .gtoreq.90.degree., and a 2nd container having a 2nd opening smaller than the surface area of the contained, said org. material. The 1st and the 2nd containers (evaporator boats) will be made from Ta, Mo, W, or BN. Evapn./sublimation velocities will be regulated properly, thereby providing films with uniform thicknesses.

ST vapor phase deposition org material thin film; org **electroluminescent** material vapor phase deposition; evaporator source design org **electroluminescent** device fabrication

IT Vapor deposition apparatus
 Vapor deposition process

(app. design for vapor phase deposition of org. material thin film for manuf. of org. **EL** device)

IT **Electroluminescent** devices

(org.; app. design for vapor phase deposition of org. material thin film for manuf. of org. **EL** device)

IT 2085-33-8, Alq3

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(electron transporting material; app. design for vapor phase deposition of org. material thin film for manuf. of org. **EL** device)

IT **232948-26-4**

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(electron/hole transporting material; app. design for vapor phase deposition of org. material thin film for manuf. of org. **EL** device)

IT 167218-46-4 **333339-14-3**

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(hole transporting layer; app. design for vapor phase deposition of

org. material thin film for manuf. of org. **EL** device)

IT **232948-26-4**

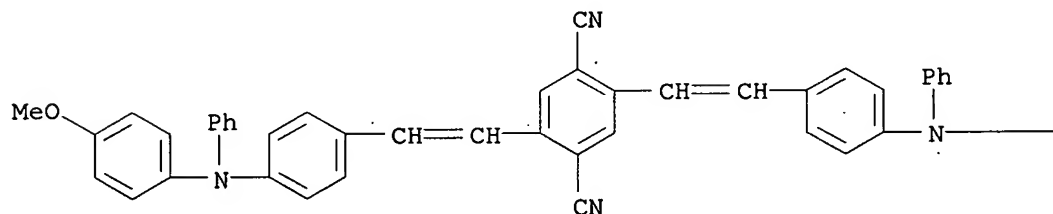
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(electron/hole transporting material; app. design for vapor phase deposition of org. material thin film for manuf. of org. **EL** device)

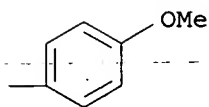
RN 232948-26-4 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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IT **333339-14-3**

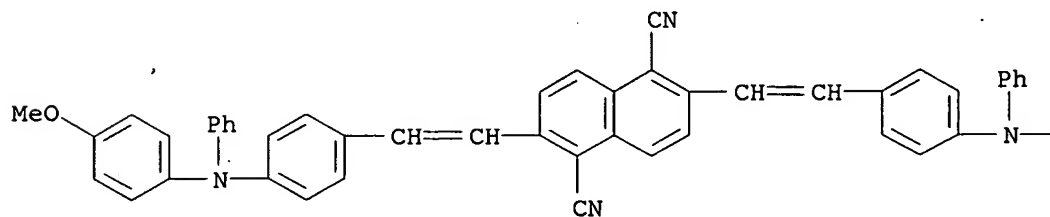
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

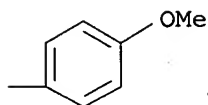
(hole transporting layer; app. design for vapor phase deposition of org. material thin film for manuf. of org. **EL** device)

RN 333339-14-3 HCAPLUS

CN 1,5-Naphthalenedicarbonitrile, 2,6-bis[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A





L22 ANSWER 4 OF 27 HCAPLUS COPYRIGHT 2003 ACS
 AN 2002:553526 HCAPLUS
 DN 137:132204
 TI Organic **electroluminescent (EL)** elements for
 full-color flat displays with high brightness and durability
 IN Tamura, Shinichiro; Ishibashi, Tadashi; Ichimura, Mari
 PA Sony Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 32 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM H05B033-14
 ICS C09K011-06
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 38, 73
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002208488	A2	20020726	JP 2001-4859	20010112
PRAI	JP 2001-4859		20010112		

AB The element has an org. layer (including a light-emitting region) between
 an anode and a cathode, wherein the org. layer contains an elec.
 conductive polymer including a styryl compd. (a distyryl compd.,
 preferably) chem. bonded to the main or side chain of the polymer.
 ST org **EL** full color flat display; **electroluminescent**
 display high brightness styryl polymer; styryl graft polyphenylenevinylene
 elec cond display
 IT Optical imaging devices
 (flat, full-color, elements for; org. **EL** elements contg.
 elec. conductive polymers having distyryl structures with high
 brightness and durability)
 IT Conducting polymers
 (light emitter; org. **EL** elements contg. elec. conductive
 polymers having distyryl structures with high brightness and
 durability)
 IT **Electroluminescent** devices
 (org. **EL** elements contg. elec. conductive polymers having
 distyryl structures with high brightness and durability)
 IT 443971-33-3 443971-35-5 443971-37-7
 443971-39-9 443971-41-3 443971-43-5
 RL: TEM (Technical or engineered material use); USES (Uses)
 (light emitter; org. **EL** elements contg. elec. conductive
 polymers having distyryl structures with high brightness and
 durability)
 IT 443971-33-3 443971-35-5 443971-37-7
 443971-39-9

RL: TEM (Technical or engineered material use); USES (Uses)
(light emitter; org. **EL** elements contg. elec. conductive
polymers having distyryl structures with high brightness and
durability)

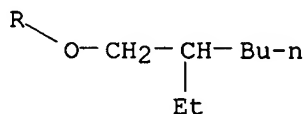
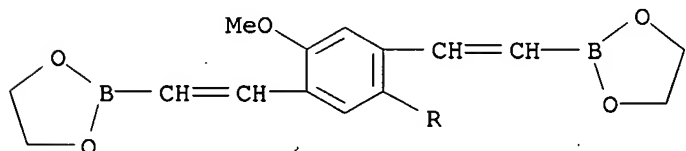
RN 443971-33-3 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2-[2-[4-[[4-[4-[(2-ethylhexyl)oxy]-2,5-
diiodophenoxy]phenyl]-1-naphthalenylamino]phenyl]ethenyl]-5-[2-[4-(1-
naphthalenylphenylamino)phenyl]ethenyl]-, polymer with
1-[(2-ethylhexyl)oxy]-2,5-diiodo-4-methoxybenzene and 2,2'-[[2-[(2-
ethylhexyl)oxy]-5-methoxy-1,4-phenylene]di-2,1-ethenediyl]bis[1,3,2-
dioxaborolane] (9CI) (CA INDEX NAME)

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CRN 443971-32-2

CMF C23 H34 B2 O6

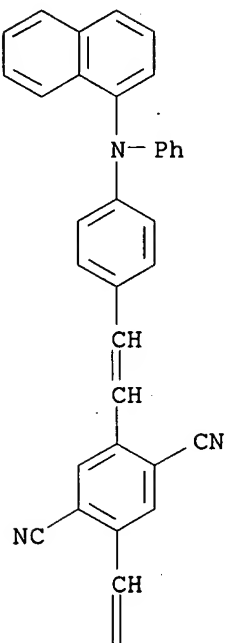


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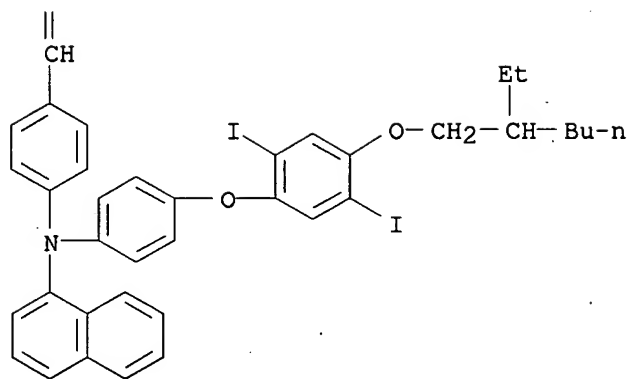
CRN 443971-31-1

CMF C70 H56 I2 N4 O2

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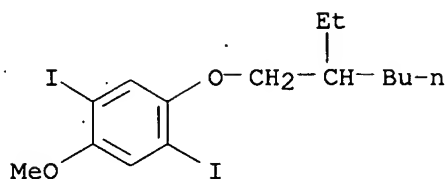


PAGE 2-A



CM 3

CRN 262355-67-9
CMF C15 H22 I2 O2



RN 443971-35-5 HCAPLUS

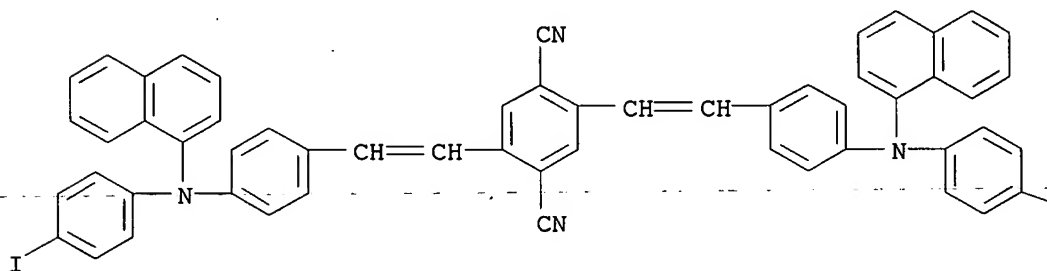
CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[(4-iodophenyl)-1-naphthalenylamino]phenyl]ethenyl]-, polymer with 1-[(2-ethylhexyl)oxy]-2,5-diiodo-4-methoxybenzene and 2,2'-[[2-[(2-ethylhexyl)oxy]-5-methoxy-1,4-phenylene]di-2,1-ethenediyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

CRN 443971-34-4

CMF C56 H36 I2 N4

PAGE 1-A



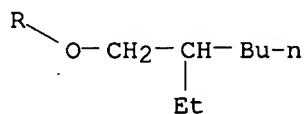
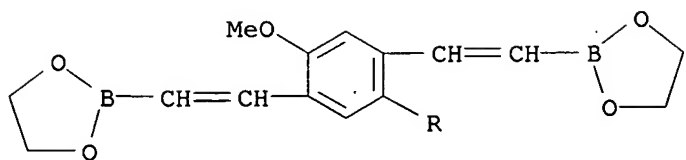
PAGE 1-B

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CM 2

CRN 443971-32-2

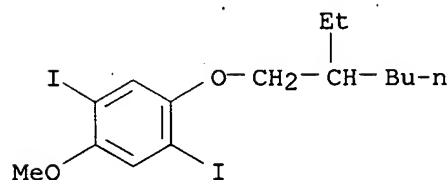
CMF C23 H34 B2 O6



CM 3

CRN 262355-67-9

CMF C15 H22 I2 O2



RN 443971-37-7 -HCAPLUS

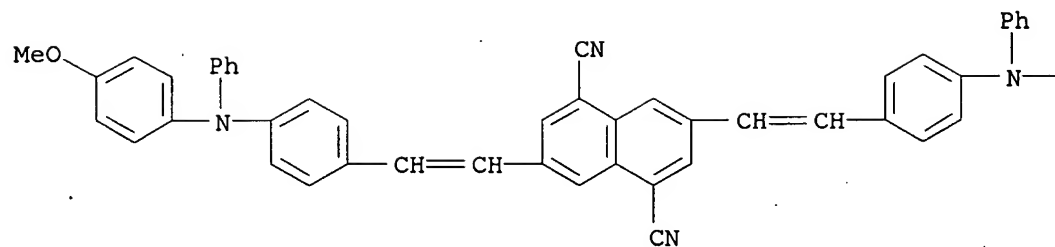
CN 1,5-Naphthalenedicarbonitrile, 3-[2-[4-[[4-[(2-ethylhexyl)oxy]-2,5-diiodophenoxy]phenyl]phenylamino]phenyl]ethenyl]-7-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]-, polymer with 1-[(2-ethylhexyl)oxy]-2,5-diiodo-4-methoxybenzene and 2,2'-[[2-[(2-ethylhexyl)oxy]-5-methoxy-1,4-phenylene]di-2,1-ethenediyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

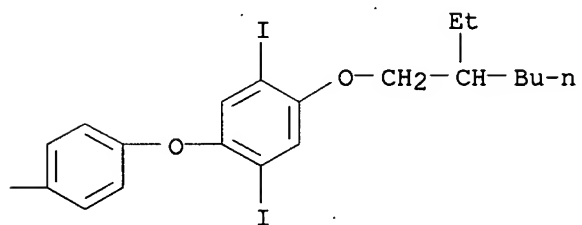
CRN 443971-36-6

CMF C67 H56 I2 N4 O3

PAGE 1-A



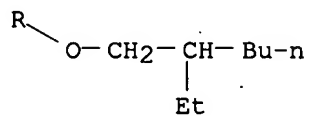
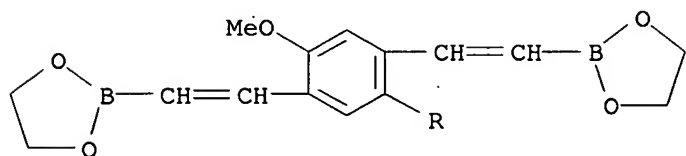
PAGE 1-B



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CRN 443971-32-2

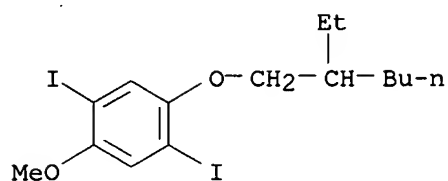
CMF C23 H34 B2 O6



CM 3

CRN 262355-67-9

CMF C15 H22 I2 O2



RN 443971-39-9 HCAPLUS

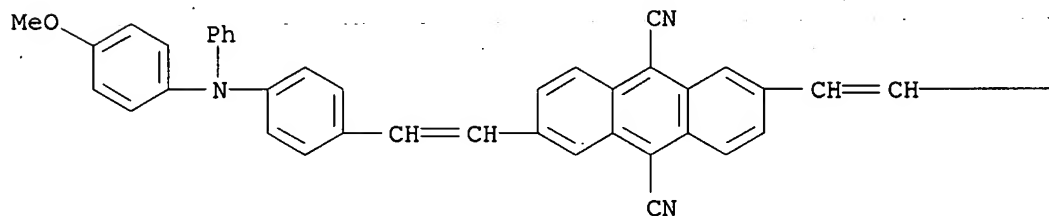
CN 9,10-Anthracenedicarbonitrile, 2-[2-[4-[[4-[(2-ethylhexyl)oxy]-2,5-diiodophenoxy]phenyl]phenylamino]phenyl]ethenyl]-6-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]-, polymer with 1-[(2-ethylhexyl)oxy]-2,5-diiodo-4-methoxybenzene and 2,2'-[[2-[(2-ethylhexyl)oxy]-5-methoxy-1,4-phenylene]di-2,1-ethenediyl]bis[1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

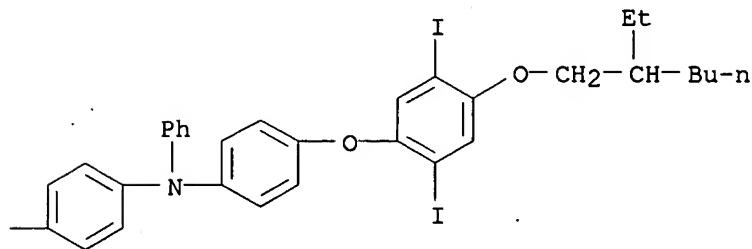
CRN 443971-38-8

CMF C71 H58 I2 N4 O3

PAGE 1-A



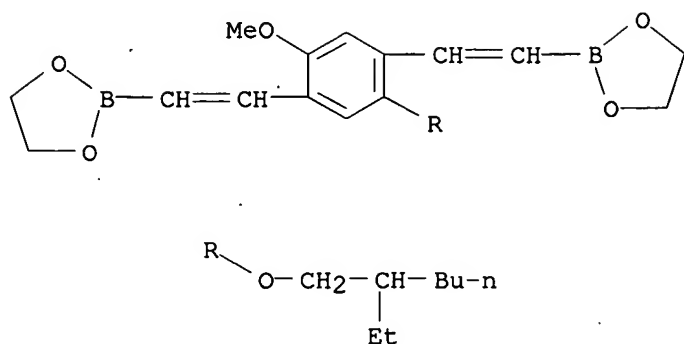
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CRN 443971-32-2

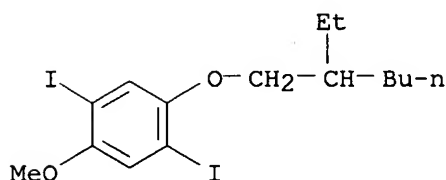
CMF C23 H34 B2 O6



CM 3

CRN 262355-67-9

CMF C15 H22 I2 O2



L22 ANSWER 5 OF 27 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:349431 HCAPLUS

DN 136:377566

TI Red organic **electroluminescence** elements with good color stability and high brightness for displays

IN Ishibashi, Tadashi; Ichimura, Mari; Tamura, Shinichiro; Ueda, Naoyuki

PA Sony Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 31 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM H05B033-14

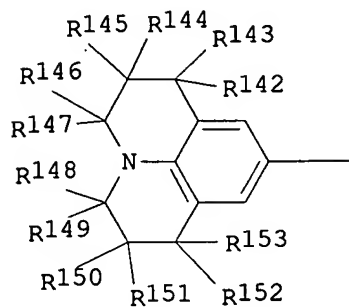
ICS C09K011-06; H05B033-22

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 73

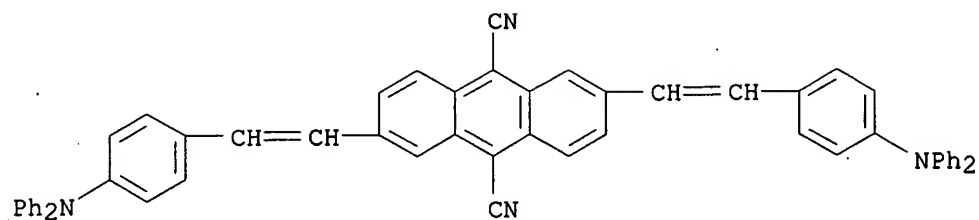
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002134276	A2	20020510	JP 2000-329902	20001030
PRAI	JP 2000-329902		20001030		
OS	MARPAT 136:377566				
GI					



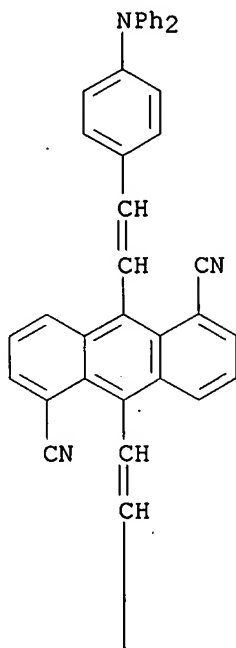
I

- AB The **electroluminescence (EL)** elements contain aminostyryl compds. Y1CH:CHX1CH:CHY2 and/or Y3CH:CHX2 [X1 = substituted anthracenylene (substituent = halo, nitro, cyano, CF3, etc.); X2 = (un)substituted Ph, naphthalenyl, anthracenyl, phenanthrenyl, pyrenyl (substituent = H, halo, nitro, cyano, CF3); Y1-3 = H, alkyl, aryl that may contain C6H4NZ1Z2, I, or (un)substituted Ph; Z1, Z2 = H, alkyl, aryl; R142-153 = H, alkyl, aryl, alkoxy, halo, etc.].
- ST org **electroluminescence** element red aminostyryl brightness;
EL display aminostyryl phosphor red stability
- IT Phosphors
 (electroluminescent; red org. **EL** elements with good color stability and high brightness for displays)
- IT **Electroluminescent** devices
 (red-emitting; red org. **EL** elements with good color stability and high brightness for displays)
- IT 4733-39-5
 RL: TEM (Technical or engineered material use); USES (Uses)
 (hole-blocking layer; red org. **EL** elements with good color stability and high brightness for displays)
- IT 101247-14-7 127697-16-9 253869-00-0 261632-47-7
 261632-87-5 321709-39-1 321735-48-2 321735-63-1
 422510-46-1 422510-49-4 422510-67-6 422510-70-1
 422510-72-3 422510-75-6 422510-76-7 422510-78-9 422510-81-4
 422510-83-6 422510-84-7 422510-85-8
 RL: TEM (Technical or engineered material use); USES (Uses)
 (red org. **EL** elements with good color stability and high brightness for displays)
- IT 253869-00-0 261632-47-7 261632-87-5
 321709-39-1 422510-67-6 422510-70-1
 RL: TEM (Technical or engineered material use); USES (Uses)
 (red org. **EL** elements with good color stability and high brightness for displays)
- RN 253869-00-0 HCAPLUS
- CN 9,10-Anthracenedicarbonitrile, 2,6-bis[2-[4-(diphenylamino)phenyl]ethenyl]-
 (9CI) (CA INDEX NAME)

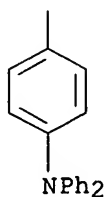


RN 261632-47-7 HCAPLUS
 CN 1,5-Anthracenedicarbonitrile, 9,10-bis[2-[4-(diphenylamino)phenyl]ethenyl]-
 (9CI) (CA INDEX NAME)

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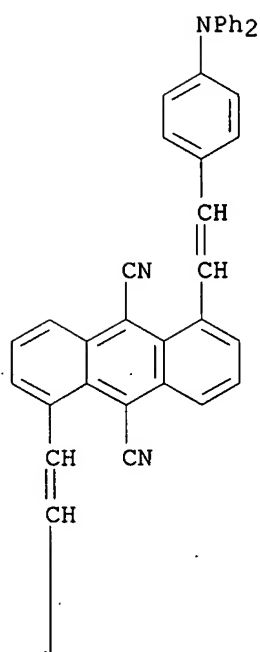


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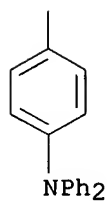


RN 261632-87-5 HCAPLUS
 CN 9,10-Anthracenedicarbonitrile, 1,5-bis[2-[4-(diphenylamino)phenyl]ethenyl]-
 (9CI) (CA INDEX NAME)

PAGE 1-A

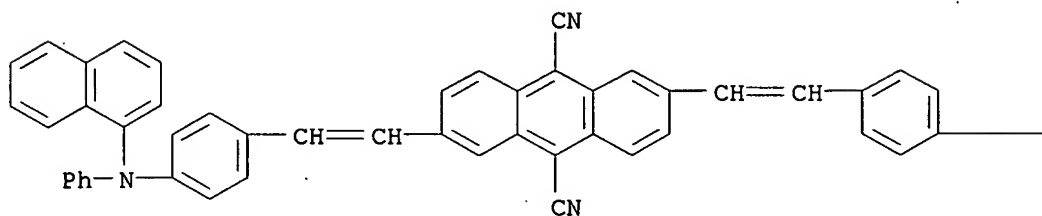


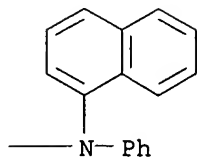
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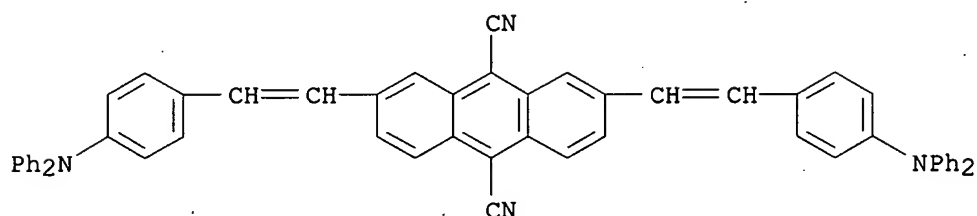
RN 321709-39-1 HCAPLUS
 CN 9,10-Anthracenedicarbonitrile, 2,6-bis[2-[4-(1-naphthalenylphenylamino)phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

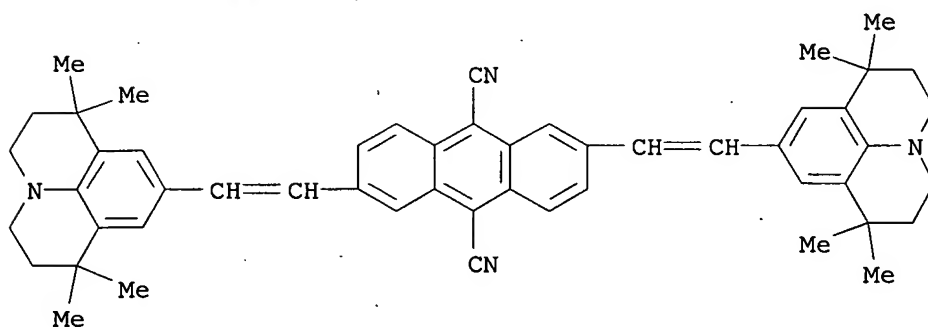




RN 422510-67-6 HCAPLUS
 CN 9,10-Anthracenedicarbonitrile, 2,7-bis[2-[4-(diphenylamino)phenyl]ethenyl]-
 (9CI) (CA INDEX NAME)



RN 422510-70-1 HCAPLUS
 CN 9,10-Anthracenedicarbonitrile, 2,6-bis[2-(2,3,6,7-tetrahydro-1,1,7,7-tetramethyl-1H,5H-benzo[ij]quinolizin-9-yl)ethenyl]- (9CI) (CA INDEX NAME)

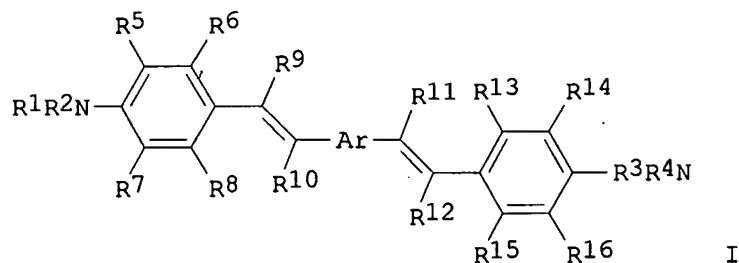


L22 ANSWER 6 OF 27 HCAPLUS COPYRIGHT 2003 ACS
 AN 2001:796642 HCAPLUS
 DN 135:350271
 TI Organic **electroluminescent** devices
 IN Tominaga, Takeshi; Murase, Seiichiro; Kohama, Toru
 PA Toray Industries, Inc., Japan
 SO Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM H05B033-14
 ICS C09K011-06
 CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related

Properties)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001307884	A2	20011102	JP 2000-125277	20000426
PRAI	JP 2000-125277		20000426		
OS	MARPAT 135:350271				
GI					



AB The devices comprise a pair of electrodes interposing a phosphor layer (emitting a peak 580-720 nm) contg. a distyryl deriv. I [Ar = condensed arom. ring, benzene having electro-affinity; R1-4 = (substituted) aryl, alkyl; R5-16 = H, alkyl, alkoxy, halo, aryl, amino, cyano].

ST org distyryl deriv phosphor **electroluminescent** device

IT Anodes

Cathodes

Fluorescence

Glass substrates

Luminescent substances

(org. **electroluminescent** devices)

IT 7440-22-4, Silver, uses 50926-11-9, ITO 65181-78-4, TPD

232948-26-4 251101-60-7 253868-17-6

RL: DEV (Device component use); USES (Uses)

(org. **electroluminescent** devices)

IT 355015-23-5 361377-25-5 371229-15-1

RL: MOA (Modifier or additive use); USES (Uses)

(org. **electroluminescent** devices)

IT **232948-26-4 251101-60-7 253868-17-6**

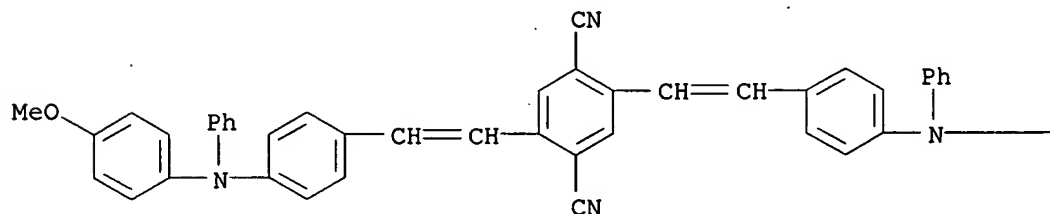
RL: DEV (Device component use); USES (Uses)

(org. **electroluminescent** devices)

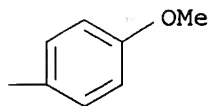
RN 232948-26-4 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

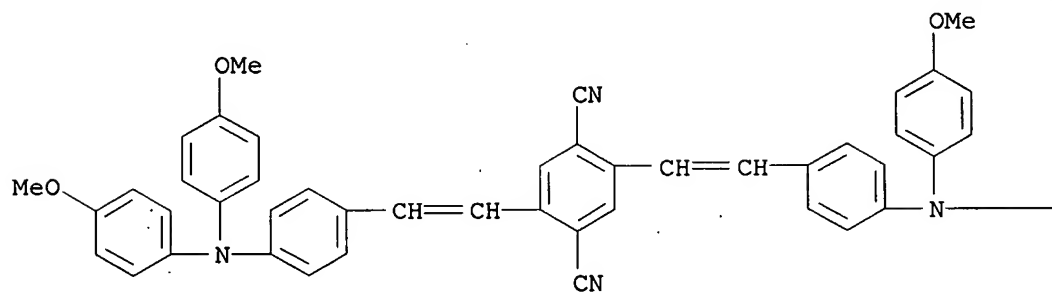


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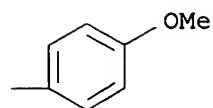


RN 251101-60-7 HCAPLUS
 CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[bis(4-methoxyphenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

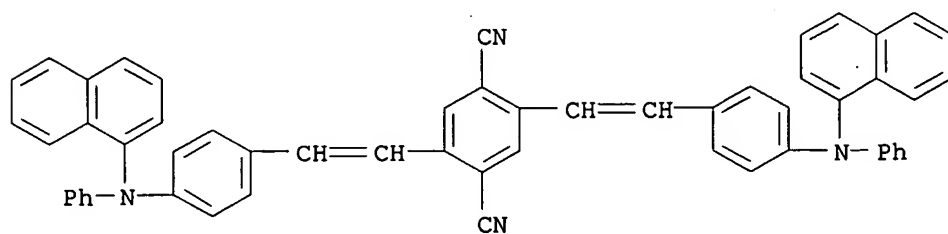
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RN 253868-17-6 HCAPLUS
 CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-(1-naphthalenylphenylamino)phenyl]ethenyl]- (9CI) (CA INDEX NAME)



AN 2001:763124 HCAPLUS
 DN 135:325069
 TI Organic **electroluminescent** element and **luminescent**
 apparatus employing the same
 IN Ishibashi, Tadashi; Ichimura, Mari; Ueda, Naoyuki; Tamura, Shinichiro
 PA Sony Corporation, Japan
 SO PCT Int. Appl., 102 pp.
 CODEN: PIXXD2

DT Patent
 LA Japanese
 IC ICM C09K011-06
 ICS H05B033-14; H05B033-22
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related
 Properties)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001077253	A1	20011018	WO 2001-JP3051	20010409
	W: KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	JP 2001291591	A2	20011019	JP 2000-106430	20000407
	EP 1205528	A1	20020515	EP 2001-919842	20010409
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	US 2002106530	A1	20020808	US 2002-9021	20020319
PRAI	JP 2000-106430	A	20000407		
	WO 2001-JP3051	W	20010409		

OS MARPAT 135:325069

AB Title element contains a compd. having a high fluorescence yield and excellent thermal stability and emits a stable red light having a high color purity and a high luminance. Title element comprises a glass substrate and disposed thereon in this order, a transparent ITO electrode, a hole-transporting layer, an electron-transporting layer, and a metal electrode, wherein the hole-transporting layer and/or the electron-transporting layer comprises a layer of a mixt. comprising .gtoreq.1 aminostyryl compd. represented by the general formula Y1CH:CHX1CH:CHY2 (X1 = aryl substituted by such as NO2, etc., each Y1 and Y2 has aminophenyl, etc. in the skeleton) and a hole-blocking layer is disposed between the hole-transporting layer and the electron-transporting layer.

ST **electroluminescent** element app aminostyryl compdIT **Electroluminescent** devices

(org. **electroluminescent** element and **luminescent**
 app. employing the same)

IT 4733-39-5 51325-91-8 123847-85-8, .alpha.-NPD 232948-26-4
 251101-60-7 253868-17-6 253868-91-6
 288626-78-8 288626-79-9 288626-80-2
 288626-81-3 288626-82-4 288626-90-4
 322475-09-2 333339-14-3 333339-15-4
 333339-16-5 333339-20-1 367509-22-6
 367509-23-7 367509-24-8 367509-25-9
 367509-26-0 367509-27-1 367509-28-2
 367509-29-3 367509-30-6 367509-31-7
 367509-32-8 367509-33-9 367509-34-0
 367509-35-1 367509-36-2 367509-37-3
 367509-38-4 367509-39-5 367509-40-8
 367509-41-9 367509-42-0

RL: DEV (Device component use); USES (Uses)
(org. **electroluminescent** element and **luminescent**
app. employing the same)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Idemitsu Kosan Company Limited; JP 02247278 A HCAPLUS
- (2) Idemitsu Kosan Company Limited; JP 03231970 A HCAPLUS
- (3) Idemitsu Kosan Company Limited; EP 388768 A2 1990 HCAPLUS
- (4) Sony Corporation; JP 11329731 A HCAPLUS
- (5) Sony Corporation; JP 200012226 A
- (6) Sony Corporation; EP 960927 A2 1999 HCAPLUS
- (7) Sony Corporation; EP 967834 A2 1999 HCAPLUS
- (8) Sony Corporation; JP 200012224 A 2000

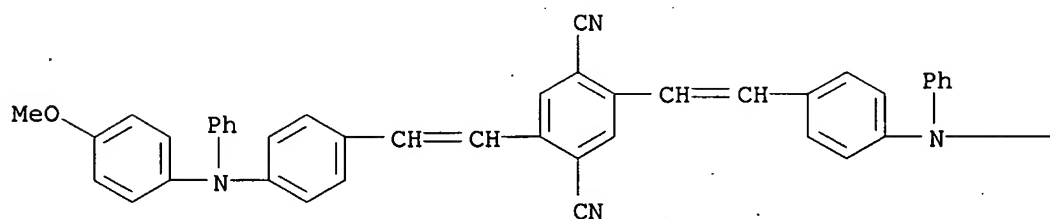
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288626-90-4 322475-09-2 333339-14-3
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RL: DEV (Device component use); USES (Uses)
(org. **electroluminescent** element and **luminescent**
app. employing the same)

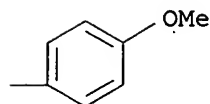
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CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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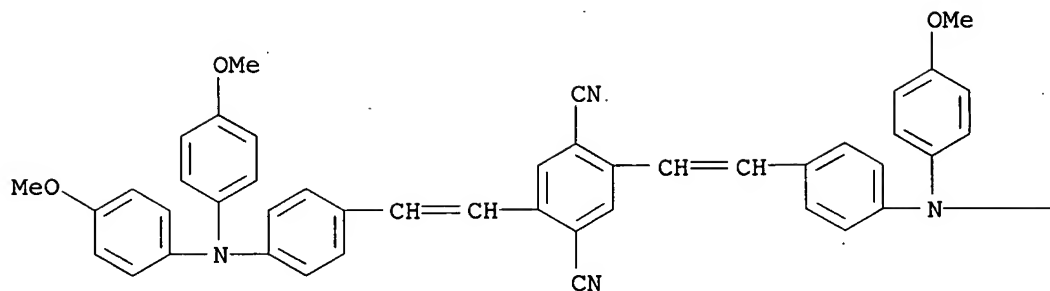
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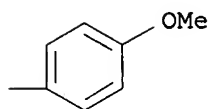
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CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[bis(4-methoxyphenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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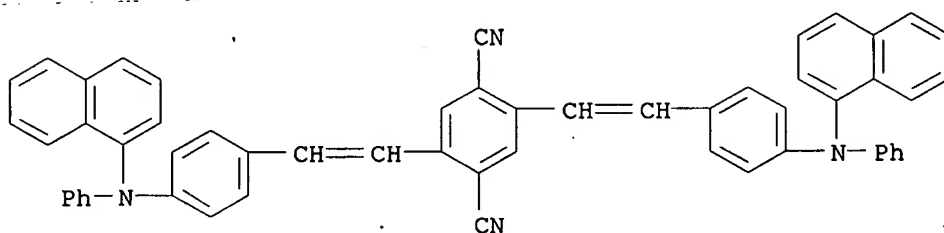


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RN 253868-17-6 HCAPLUS

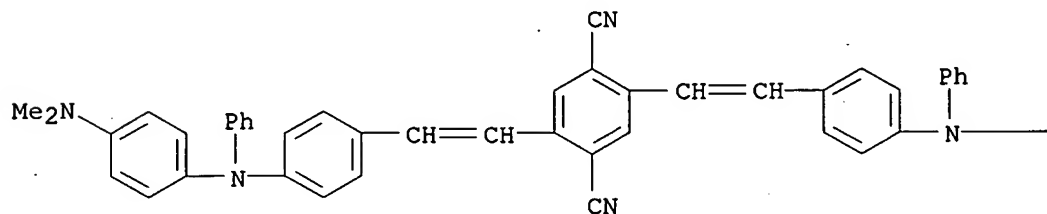
CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-(1-naphthalenylphenylamino)phenyl]ethenyl]- (9CI) (CA INDEX NAME)



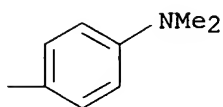
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CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[[4-(dimethylamino)phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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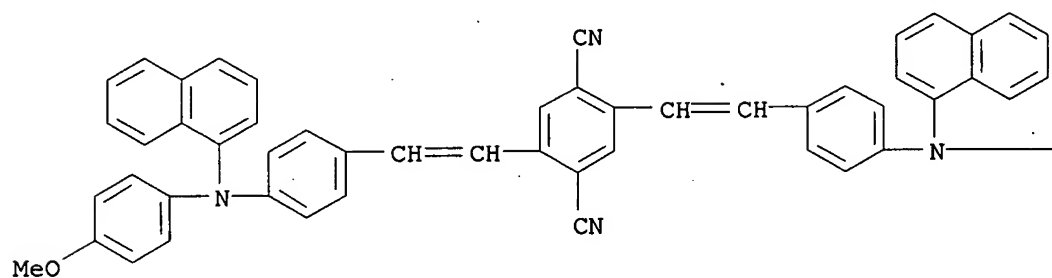
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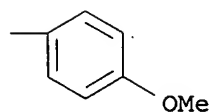
RN 288626-78-8 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[(4-methoxyphenyl)-1-naphthalenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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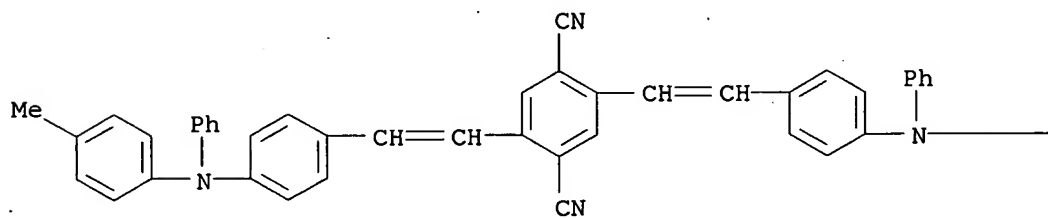
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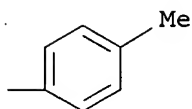
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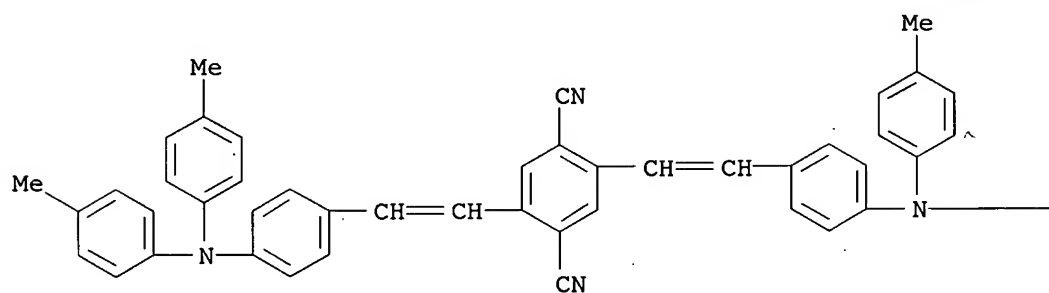


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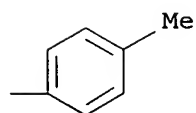


RN 288626-80-2 HCAPLUS
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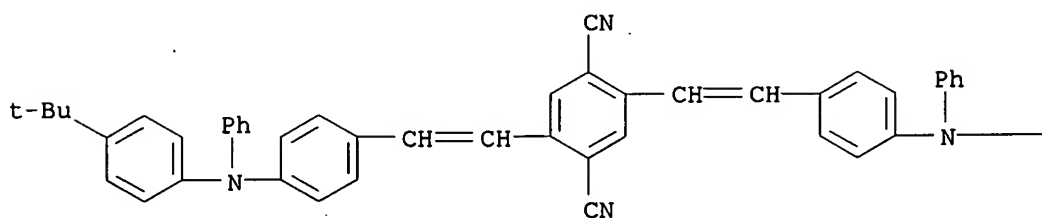


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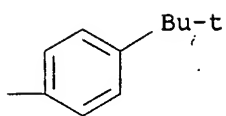


RN 288626-81-3 HCAPLUS
 CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[[4-(1,1-dimethylethyl)phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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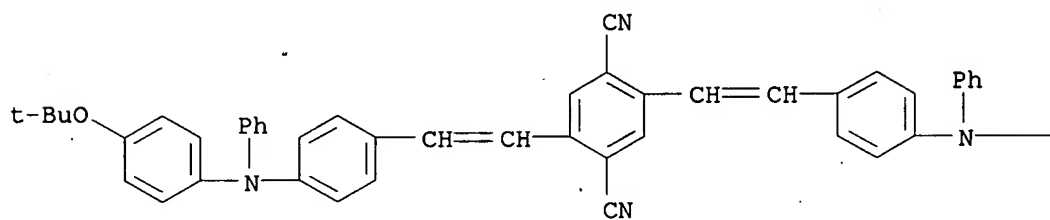


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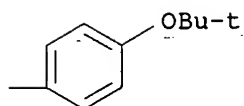


RN 288626-82-4 HCAPLUS
CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[[4-(1,1-dimethylethoxy)phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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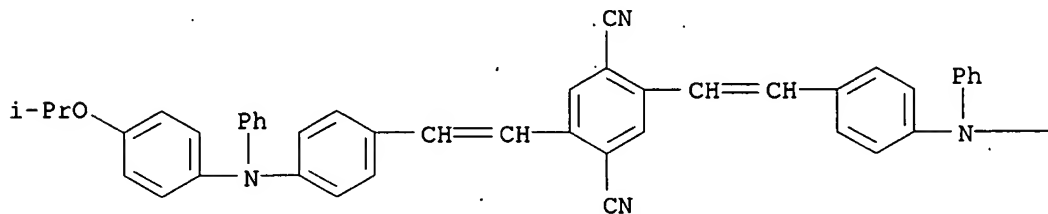


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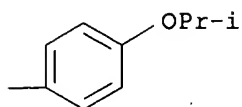


RN 288626-90-4 HCAPLUS
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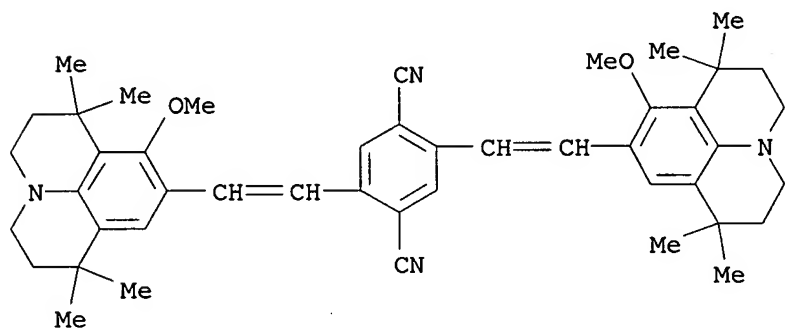


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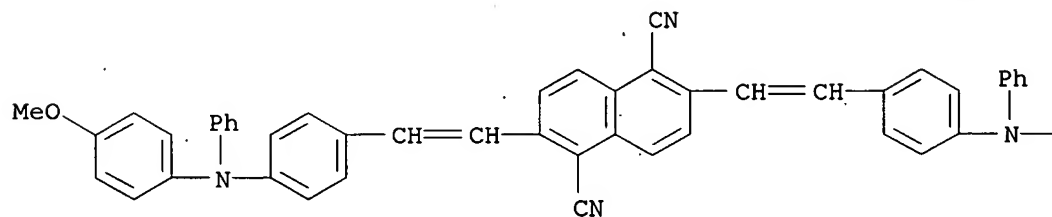
RN 322475-09-2 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-(2,3,6,7-tetrahydro-8-methoxy-1,1,7,7-tetramethyl-1H,5H-benzo[ij]quinolizin-9-yl)ethenyl]- (9CI) (CA INDEX NAME)



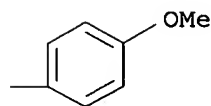
RN 333339-14-3 HCAPLUS

CN 1,5-Naphthalenedicarbonitrile, 2,6-bis[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)



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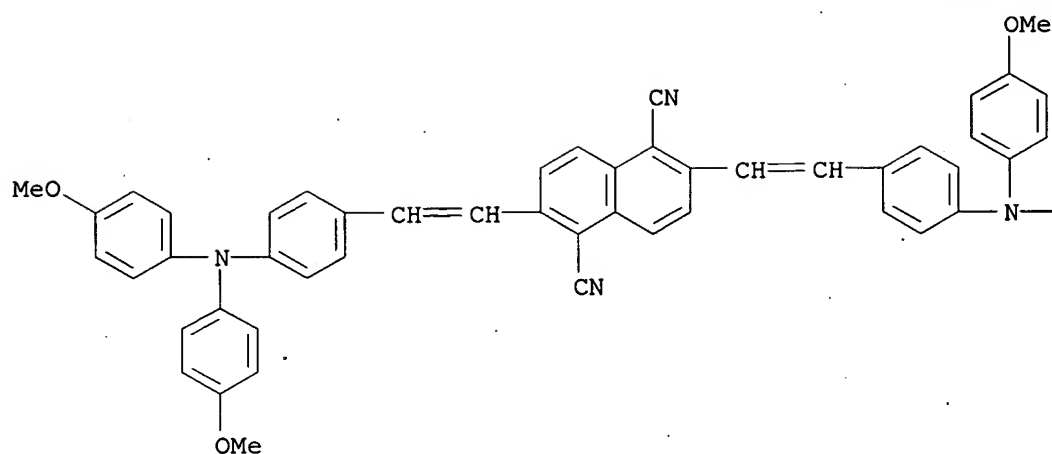
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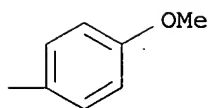
RN 333339-15-4 HCAPLUS

CN 1,5-Naphthalenedicarbonitrile, 2,6-bis[2-[4-[bis(4-methoxyphenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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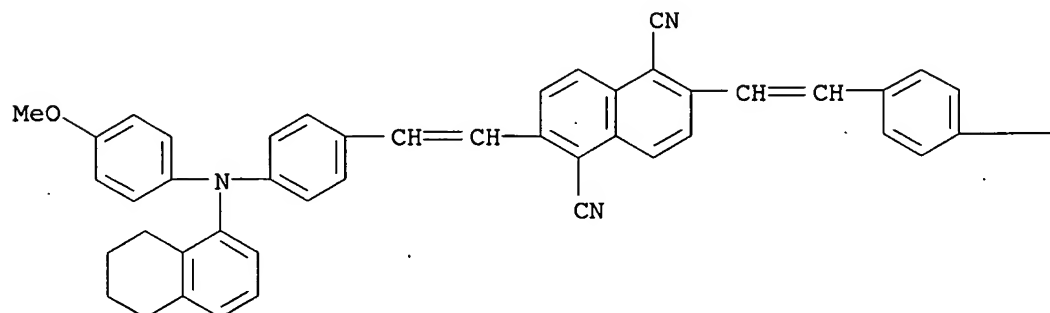


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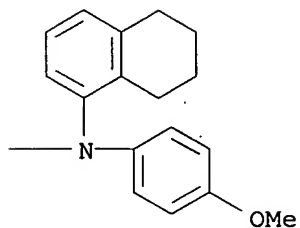


RN 333339-16-5 HCAPLUS
 CN 1,5-Naphthalenedicarbonitrile, 2,6-bis[2-[4-[(4-methoxyphenyl)(5,6,7,8-tetrahydro-1-naphthalenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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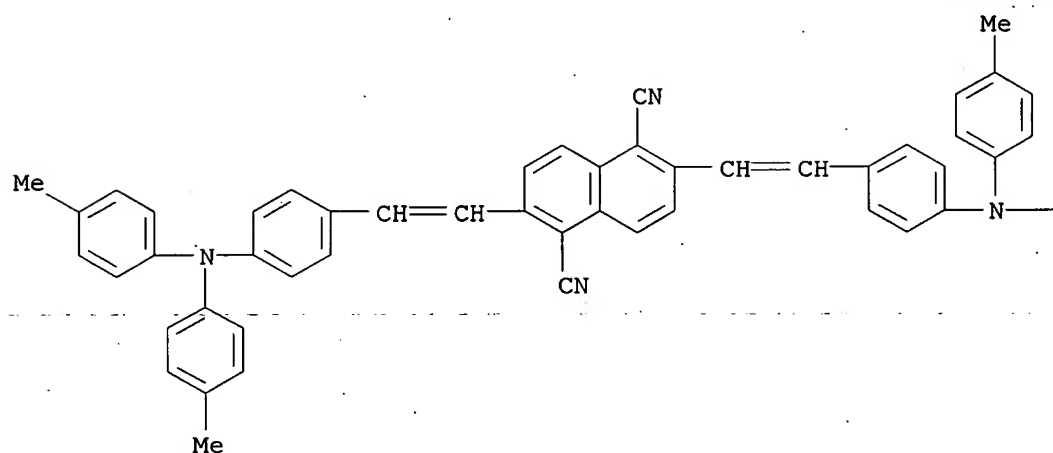


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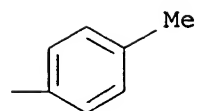


RN 333339-20-1 HCAPLUS
 CN 1,5-Naphthalenedicarbonitrile, 2,6-bis[2-[4-[bis(4-methylphenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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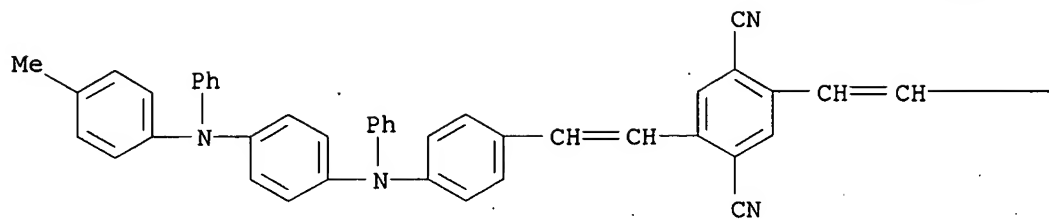


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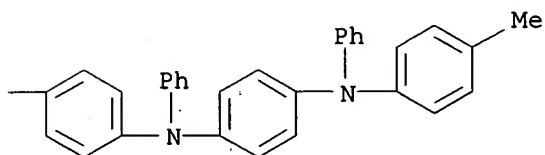


RN 367509-22-6 HCAPLUS
 CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[[4-[(4-methylphenyl)phenylamino]phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

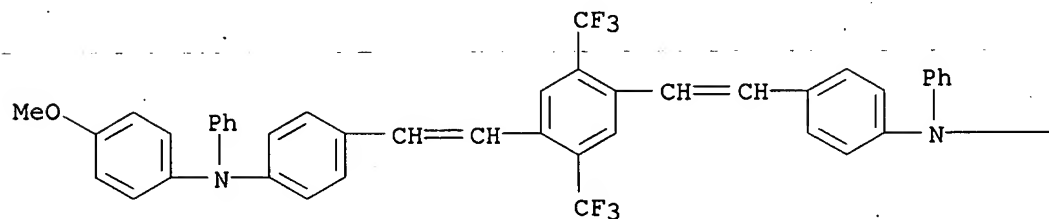


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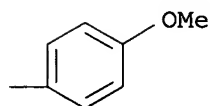


RN 367509-23-7 HCAPLUS
 CN Benzenamine, 4,4'-[[2,5-bis(trifluoromethyl)-1,4-phenylene]di-2,1-ethenediyl]bis[N-(4-methoxyphenyl)-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

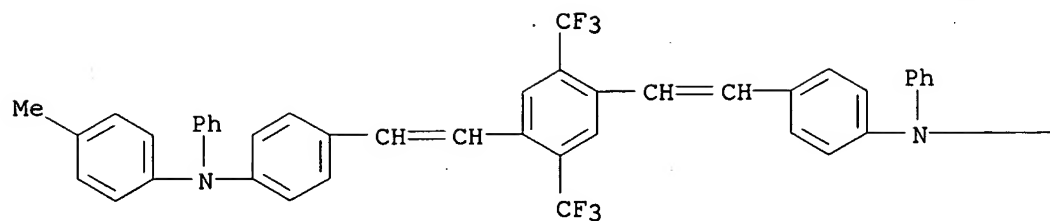


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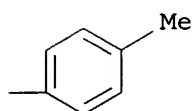


RN 367509-24-8 HCAPLUS
 CN Benzenamine, 4,4'-[[2,5-bis(trifluoromethyl)-1,4-phenylene]di-2,1-ethenediyl]bis[N-(4-methylphenyl)-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

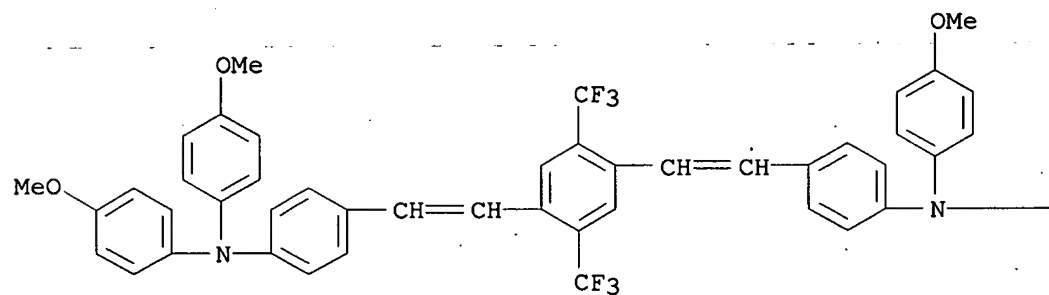


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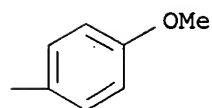


RN 367509-25-9 HCAPLUS
 CN Benzenamine, 4,4'-[[2,5-bis(trifluoromethyl)-1,4-phenylene]di-2,1-ethenediyl]bis[N,N-bis(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

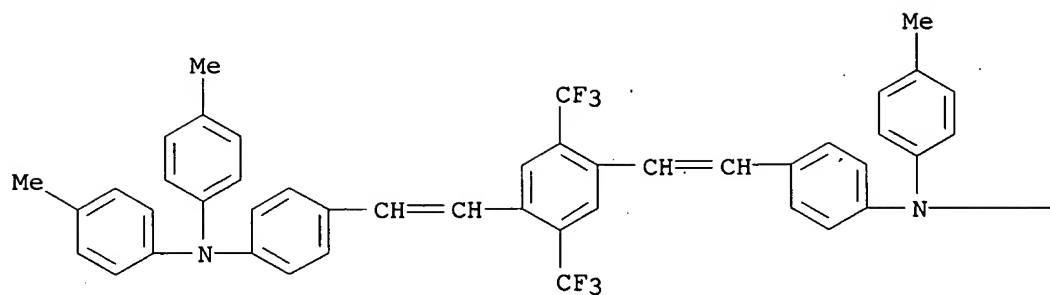


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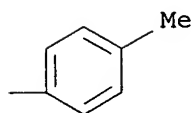


RN 367509-26-0 HCAPLUS
 CN Benzenamine; 4,4'-[[2,5-bis(trifluoromethyl)-1,4-phenylene]di-2,1-ethenediyl]bis[N,N-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

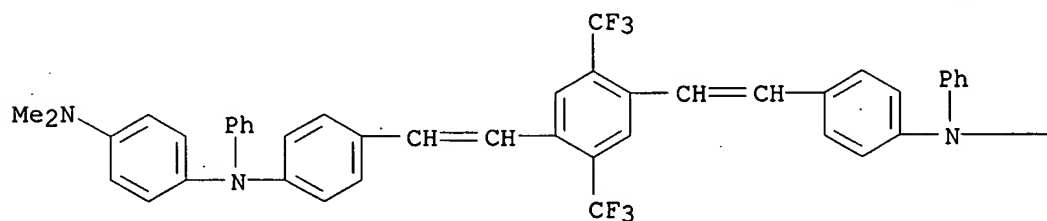


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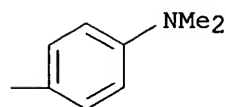


RN 367509-27-1 HCAPLUS
 CN 1,4-Benzenediamine, N,N'-[2,5-bis(trifluoromethyl)-1,4-phenylene]bis(2,1-ethenediyl-4,1-phenylene)]bis[N',N'-dimethyl-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

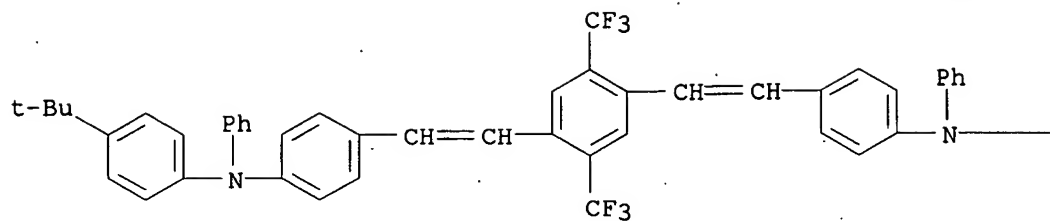


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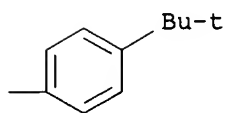


RN 367509-28-2 HCAPLUS
 CN Benzenamine, 4,4'-[[2,5-bis(trifluoromethyl)-1,4-phenylene]di-2,1-ethenediyl]bis[N-[4-(1,1-dimethylethyl)phenyl]-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

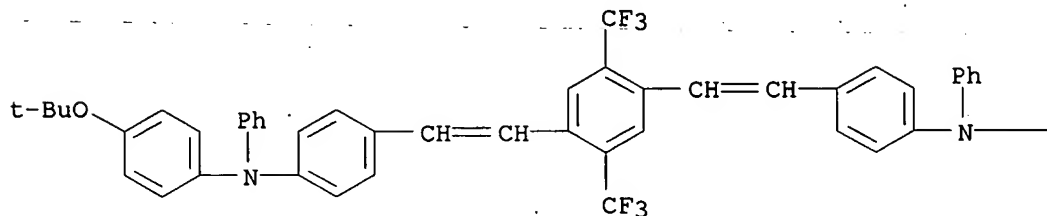


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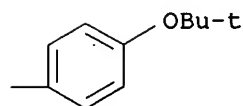


RN 367509-29-3 HCAPLUS
 CN Benzenamine, 4,4'-[[2,5-bis(trifluoromethyl)-1,4-phenylene]di-2,1-ethenediyl]bis[N-[4-(1,1-dimethylethoxy)phenyl]-N-phenyl- (9CI) (CA INDEX NAME)

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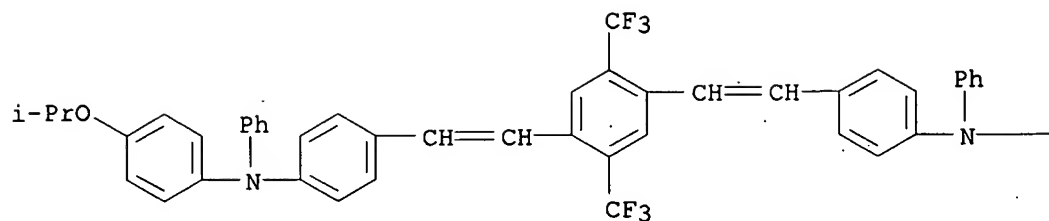


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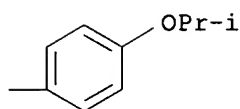


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 CN Benzenamine, 4,4'-[[2,5-bis(trifluoromethyl)-1,4-phenylene]di-2,1-ethenediyl]bis[N-[4-(1-methylethoxy)phenyl]-N-phenyl- (9CI) (CA INDEX NAME)

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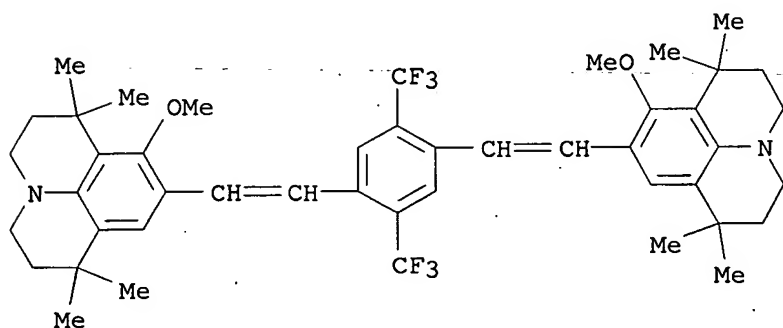


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RN 367509-31-7 HCAPLUS

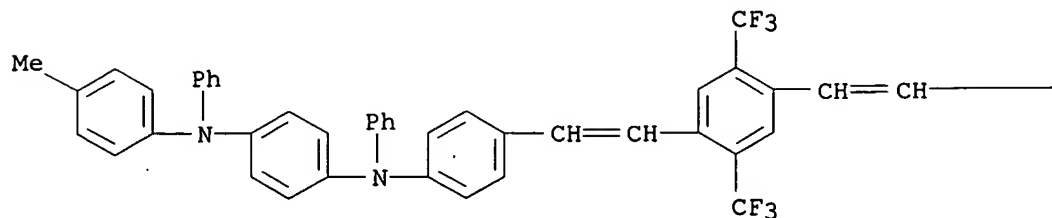
CN 1H,5H-Benzo[*ij*]quinolizine, 9,9'-[[2,5-bis(trifluoromethyl)-1,4-phenylene]di-2,1-ethenediyl]bis[2,3,6,7-tetrahydro-8-methoxy-1,1,7,7-tetramethyl- (9CI) (CA INDEX NAME)



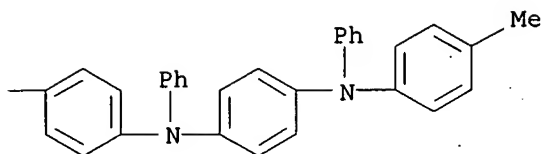
RN 367509-32-8 HCAPLUS

CN 1,4-Benzenediamine, N,N'-[[2,5-bis(trifluoromethyl)-1,4-phenylene]bis(2,1-ethenediyl-4,1-phenylene)]bis[N'-(4-methylphenyl)-N,N'-diphenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

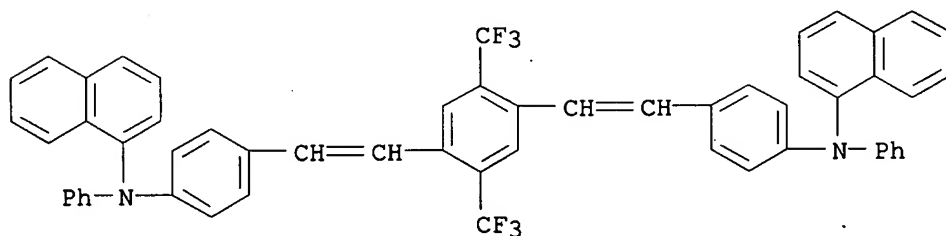


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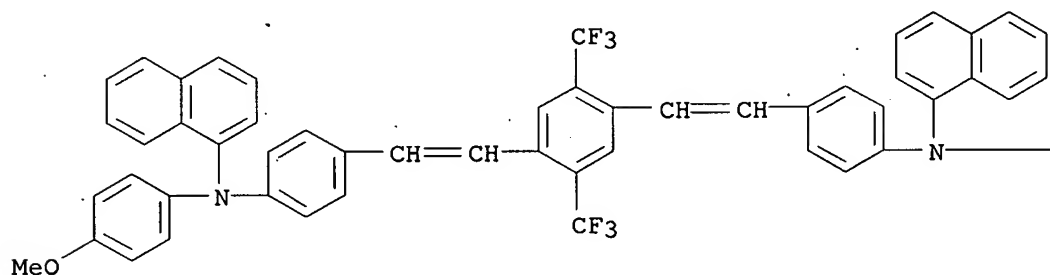
CN 1-Naphthalenamine, N,N'-[[2,5-bis(trifluoromethyl)-1,4-phenylene]bis(2,1-ethenediyl-4,1-phenylene)]bis[N-phenyl- (9CI) (CA INDEX NAME)]



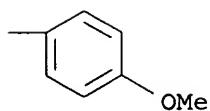
RN 367509-34-0 HCAPLUS

CN 1-Naphthalenamine, N,N'-[[2,5-bis(trifluoromethyl)-1,4-phenylene]bis(2,1-ethenediyl-4,1-phenylene)]bis[N-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)]

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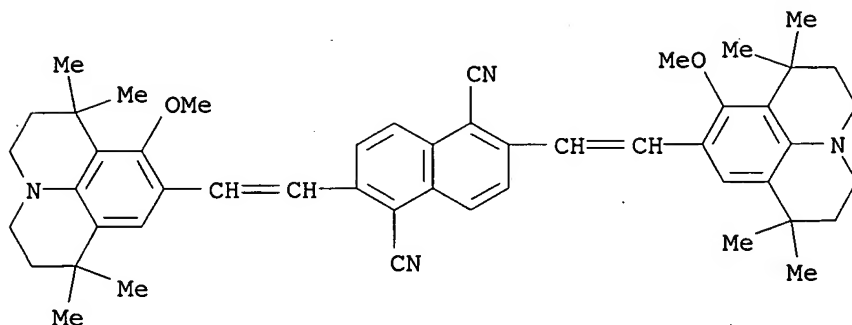
PAGE 1-B



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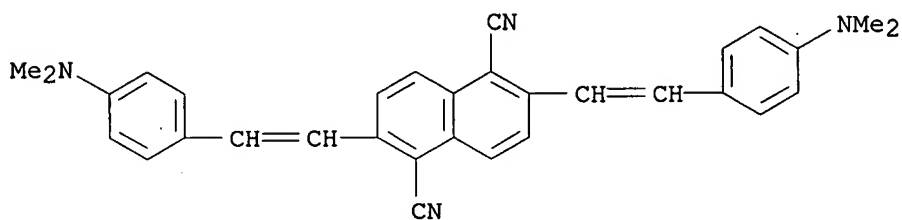
CN 1,5-Naphthalenedicarbonitrile, 2,6-bis[2-(2,3,6,7-tetrahydro-8-methoxy-

1,1,7,7-tetramethyl-1H,5H-benzo[ij]quinolizin-9-yl)ethenyl]- (9CI) (CA INDEX NAME)



RN 367509-36-2 HCAPLUS

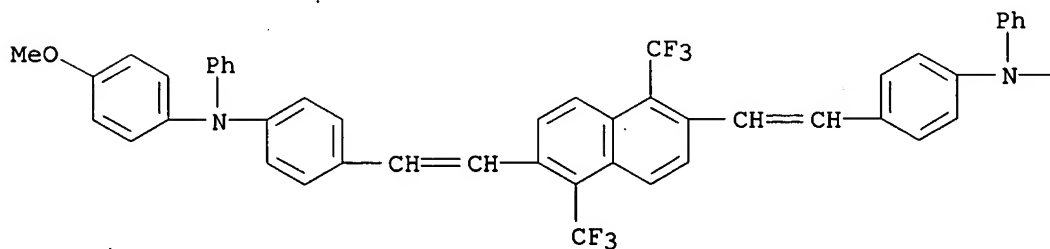
CN 1,5-Naphthalenedicarbonitrile, 2,6-bis[2-[4-(dimethylamino)phenyl]ethenyl]- (9CI) (CA INDEX NAME)



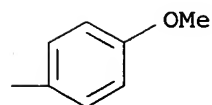
RN 367509-37-3 HCAPLUS

CN Benzenamine, 4,4'-[[1,5-bis(trifluoromethyl)-2,6-naphthalenediyl]di-2,1-ethenediyl]bis[N-(4-methoxyphenyl)-N-phenyl]- (9CI) (CA INDEX NAME)

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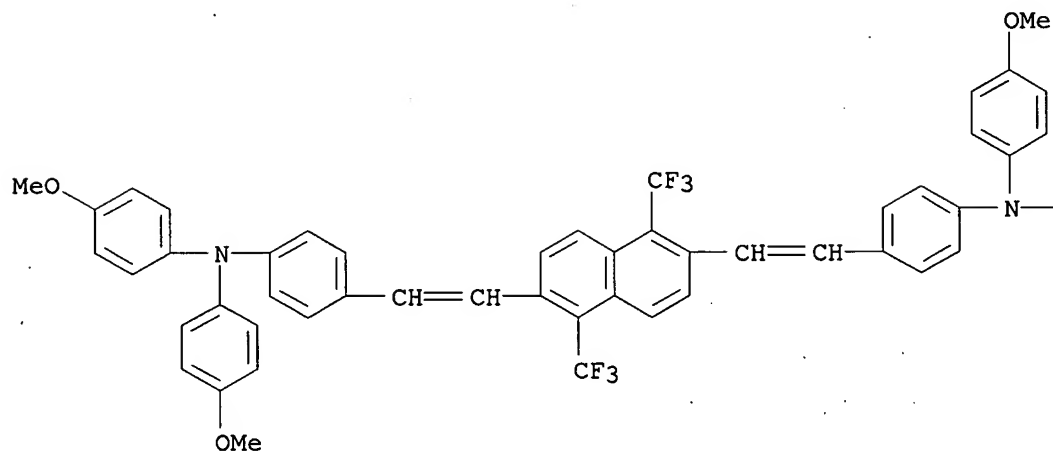
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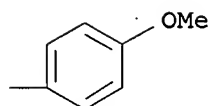
RN 367509-38-4 HCAPLUS

CN Benzenamine, 4,4'-[[1,5-bis(trifluoromethyl)-2,6-naphthalenediyl]di-2,1-ethenediyl]bis[N,N-bis(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

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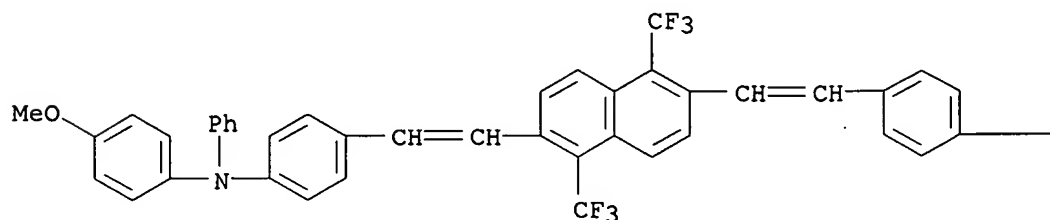
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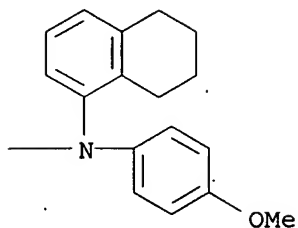
RN 367509-39-5 HCAPLUS

CN 1-Naphthalenamine, 5,6,7,8-tetrahydro-N-(4-methoxyphenyl)-N-[4-[2-[6-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]-1,5-bis(trifluoromethyl)-2-naphthalenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)

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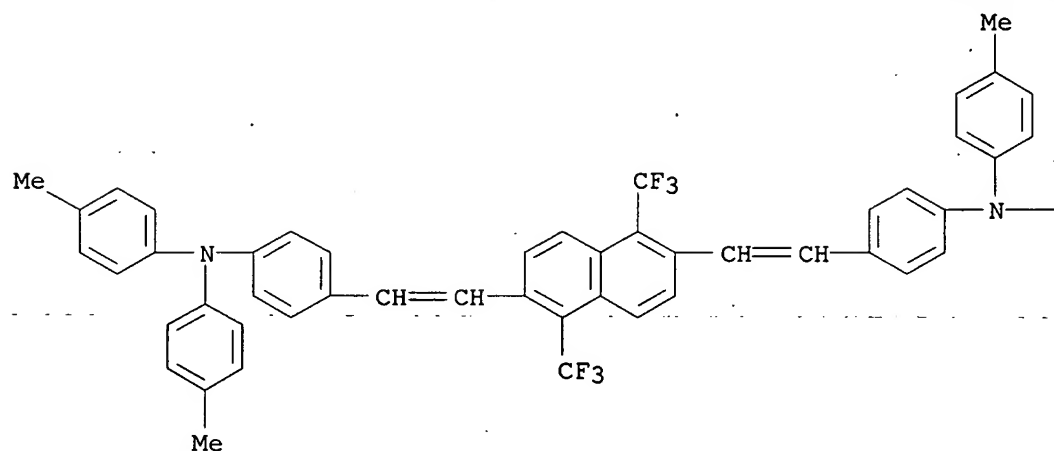


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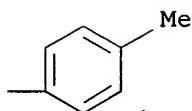


RN 367509-40-8 HCAPLUS
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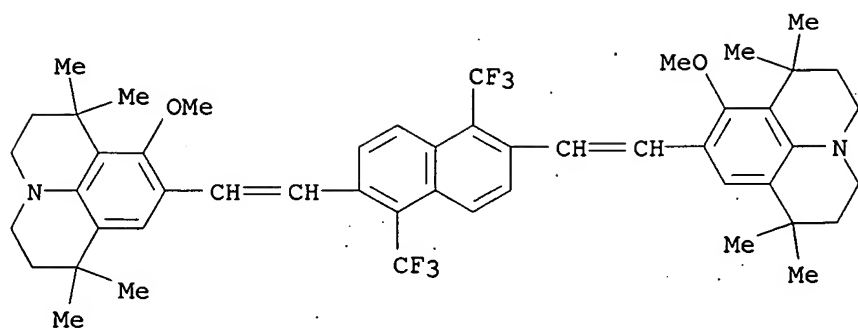
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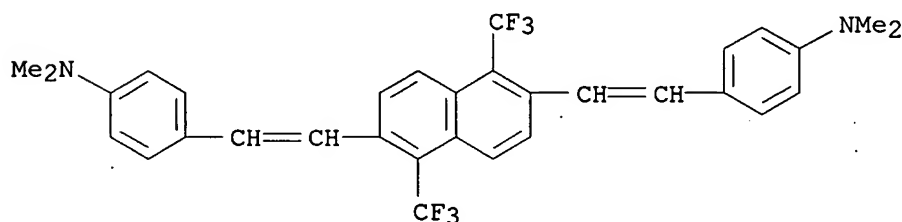
PAGE 1-B



RN 367509-41-9 HCAPLUS
 CN 1H,5H-Benzo[ij]quinolizine, 9,9'-[[1,5-bis(trifluoromethyl)-2,6-naphthalenediyl]di-2,1-ethenediyl]bis[2,3,6,7-tetrahydro-8-methoxy-1,1,7,7-tetramethyl- (9CI) (CA INDEX NAME)



RN 367509-42-0 HCAPLUS
 CN Benzenamine, 4,4'-[[1,5-bis(trifluoromethyl)-2,6-naphthalenediyl]di-2,1-ethenediyl]bis[N,N-dimethyl- (9CI) (CA INDEX NAME)



L22: ANSWER 8 OF 27 HCAPLUS. COPYRIGHT 2003 ACS
 AN 2001:538301 HCAPLUS
 DN 135:272726
 TI Synthesis, characterization, and optical response of dipolar and non-dipolar poly(phenylenevinylene) dendrimers
 AU Diez-Barra, Enrique; Garcia-Martinez, Joaquin C.; Merino, Sonia; del Rey, Riansares; Rodriguez-Lopez, Julian; Sanchez-Verdu, Prado; Tejeda, Juan
 CS Facultad de Quimica, Universidad de Castilla-La Mancha, Ciudad Real, 13071, Spain
 SO Journal of Organic Chemistry (2001), 66(17), 5664-5670
 CODEN: JOCEAH; ISSN: 0022-3263
 PB American Chemical Society
 DT Journal
 LA English
 CC 25-15 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 22, 29
 AB New dipolar and non-dipolar poly(phenylenevinylene) dendrimers bearing electron-donating and electron-withdrawing groups have been efficiently synthesized using Heck and Horner-Wadsworth-Emmons reactions. The **photoluminescence** of these systems may be tuned in the blue zone by choosing the appropriate peripheral groups. Despite the meta-substitution pattern, large Stokes shifts can be obsd. when .pi.-donor and .pi.-acceptor groups are connected by a m-phenylenevinylene system.
 ST polyphenylenevinylene dendrimer dipolar nondipolar prepn .
photoluminescence.UV; phenylenevinylene poly dendrimer prepn
photoluminescence UV spectra; Heck reaction prepn
 polyphenylenevinylene dendrimer; Horner Wadsworth Emmons reaction prepn

polyphenylenevinylene dendrimer
 IT Vinylation
 (Heck; **photoluminescence** and UV spectra of
 poly(phenylenevinylene) dendrimers prepd. via Heck and
 Horner-Wadsworth-Emmons reactions)
 IT Horner Wadsworth Emmons reaction
Luminescence
 UV and visible spectra
 (**photoluminescence** and UV spectra of poly(phenylenevinylene)
 dendrimers prepd. via Heck and Horner-Wadsworth-Emmons reactions)
 IT 256386-08-0P
 RL: BYP (Byproduct); PREP (Preparation)
 (**photoluminescence** and UV spectra of poly(phenylenevinylene)
 dendrimers prepd. via Heck and Horner-Wadsworth-Emmons reactions)
 IT 363622-78-0P 363622-79-1P 363622-84-8P
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent)
 (**photoluminescence** and UV spectra of poly(phenylenevinylene)
 dendrimers prepd. via Heck and Horner-Wadsworth-Emmons reactions)
 IT 34631-21-5P 100514-55-4P 348621-30-7P 348621-34-1P 363622-52-0P
 363622-53-1P 363622-54-2P 363622-71-3P 363622-72-4P 363622-74-6P
 363622-77-9P 363622-80-4P 363622-83-7P 363622-85-9P 363622-90-6P
 363622-91-7P 363622-92-8P 363622-93-9P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (**photoluminescence** and UV spectra of poly(phenylenevinylene)
 dendrimers prepd. via Heck and Horner-Wadsworth-Emmons reactions)
 IT 122-52-1, Triethyl phosphite 556-96-7, 1-Bromo-3,5-dimethylbenzene
 626-39-1, 1,3,5-Tribromobenzene 1611-92-3, 1,3-Dibromo-5-methylbenzene
 2672-58-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (**photoluminescence** and UV spectra of poly(phenylenevinylene)
 dendrimers prepd. via Heck and Horner-Wadsworth-Emmons reactions)
 IT 4464-18-0P, 1,3,5-Benzenetrimethanol 6566-57-0P 18226-42-1P,
 1,3,5-Tris(bromomethyl)benzene 51760-23-7P 56908-88-4P 195209-24-6P
 200809-09-2P 205578-74-1P 252188-95-7P 252188-96-8P 296795-92-1P
 363622-48-4P 363622-49-5P 363622-50-8P 363622-51-9P 363622-70-2P
 363622-86-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (**photoluminescence** and UV spectra of poly(phenylenevinylene)
 dendrimers prepd. via Heck and Horner-Wadsworth-Emmons reactions)
 IT 363622-55-3P **363622-56-4P** 363622-57-5P 363622-58-6P
 363622-59-7P 363622-60-0P 363622-61-1P 363622-62-2P 363622-63-3P
 363622-64-4P 363622-65-5P 363622-66-6P 363622-67-7P 363622-68-8P
 363622-69-9P 363622-73-5P 363622-75-7P 363622-81-5P 363622-82-6P
 363622-87-1P 363622-88-2P 363622-89-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (**photoluminescence** and UV spectra of poly(phenylenevinylene)
 dendrimers prepd. via Heck and Horner-Wadsworth-Emmons reactions)

RE.CNT 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD

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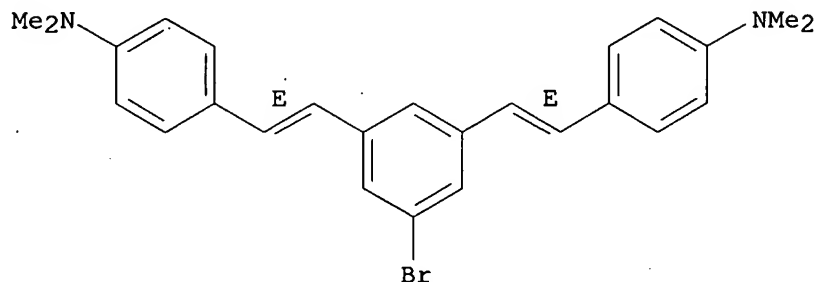
IT 363622-56-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (photoluminescence and UV spectra of poly(phenylenevinylene)
 dendrimers prepd. via Heck and Horner-Wadsworth-Emmons reactions)

RN 363622-56-4 HCAPLUS

CN Benzenamine, 4,4'-[(5-bromo-1,3-phenylene)di-(1E)-2,1-ethenediyl]bis[N,N-dimethyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L22 ANSWER 9 OF 27 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:269310 HCAPLUS

DN 134:280613

TI Preparation of **luminescent** bis(aminostyryl)naphthalenes and their intermediates

IN Ichimura, Mari; Ishibashi, Tadashi; Tamura, Shinichiro

PA Sony Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 81 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

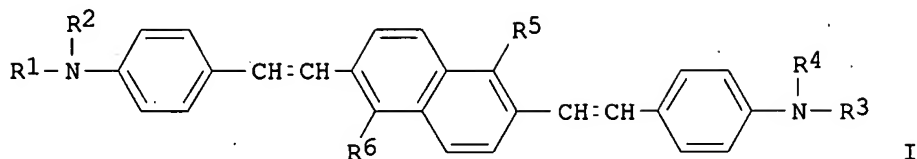
IC ICM C07C211-54

ICS C07C255-58; C07F009-40; C07F009-54; C09K011-06; H05B033-14

CC 25-24 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 74

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001106658	A2	20010417	JP 1999-285255	19991006
	EP 1092704	A2	20010418	EP 2000-121753	20001005
	EP 1092704	A3	20010425		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6492557	B1	20021210	US 2000-680386	20001005
	US 2003069448	A1	20030410	US 2002-231355	20020829
	US 2003073867	A1	20030417	US 2002-231419	20020829
PRAI	JP 1999-285254	A	19991006		
	JP 1999-285255	A	19991006		
	US 2000-680386	A3	20001005		
OS	CASREACT 134:280613; MARPAT 134:280613				
GI					



AB Title compds. I [R1-R4 = (un)substituted aryl; R5, R6 = H, cyano, NO₂, CF₃, halo], useful for **electroluminescent** devices, and their intermediates are prep'd. 1,5-Dicyano-2,6-bis(diethoxyphosphorylmethyl)naphthalene (prepn. given) was treated with NaH followed by p-MeOC₆H₄NPhC₆H₄CHO-p in THF/DMF at room temp. for 10 h to give 20% I (R1 = R4 = C₆H₄OMe-p, R2 = R3 = Ph, R5 = R6 = cyano) having visible absorption max. at 493 nm and fluorescence max. at 545 nm.

ST aminostyrylnaphthalene fluorescent prep'n **electroluminescent** device; naphthalene bisaminostyryl prep'n **electroluminescent** device; Wittig reaction benzaldehyde naphthalene phosphonate

IT **Electroluminescent** devices

Fluorescent substances

(prepn. of **luminescent** bis(aminostyryl)naphthalenes for **electroluminescent** devices)

IT 122-52-1, Triethyl phosphite 36063-00-0 87755-82-6 89115-20-8 288627-01-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of **luminescent** bis(aminostyryl)naphthalenes for **electroluminescent** devices)

IT 333339-13-2P 333339-17-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of **luminescent** bis(aminostyryl)naphthalenes for **electroluminescent** devices)

IT 62555-81-1P 63804-66-0P 333339-14-3P 333339-15-4P

333339-16-5P 333339-18-7P 333339-19-8P

333339-20-1P 333339-21-2P 333339-22-3P

333339-23-4P 333339-24-5P 333339-25-6P

333339-26-7P 333339-27-8P 333339-28-9P

333339-29-0P 333339-30-3P 333339-31-4P

333339-32-5P 333339-34-7P 333339-35-8P

333339-36-9P 333339-37-0P 333339-38-1P

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333339-50-7P 333339-51-8P 333339-52-9P 333339-53-0P 333339-54-1P

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333340-65-1P 333340-67-3P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. of **luminescent** bis(aminostyryl)naphthalenes for **electroluminescent** devices)

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333339-21-2P 333339-22-3P 333339-23-4P

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333339-27-8P 333339-28-9P 333339-29-0P

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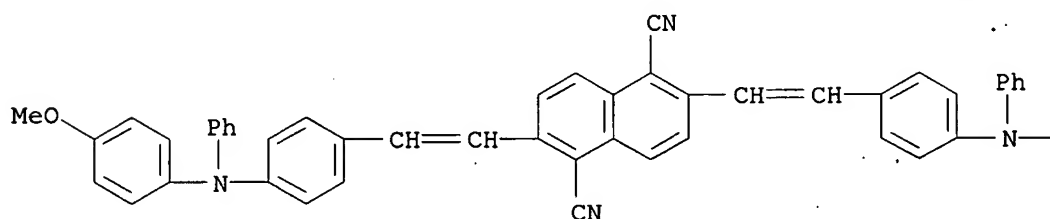
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(prepn. of **luminescent** bis(aminostyryl)naphthalenes for **electroluminescent** devices)

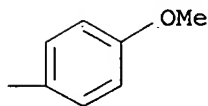
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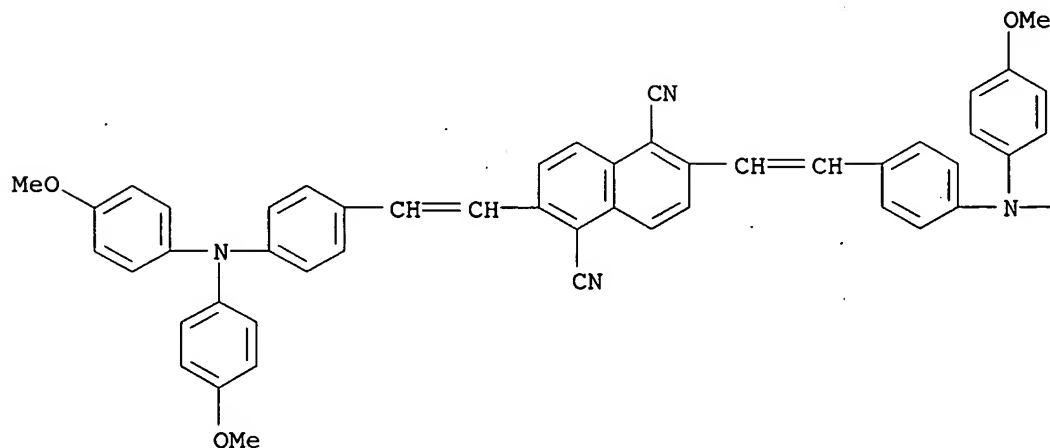
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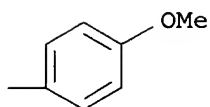
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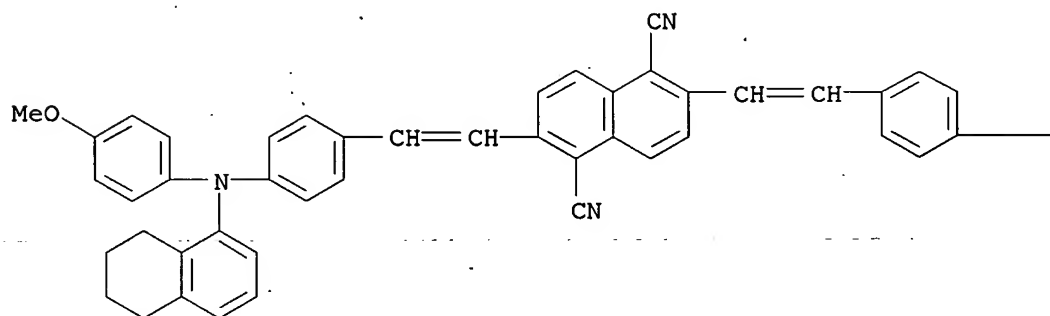


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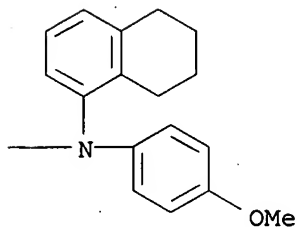


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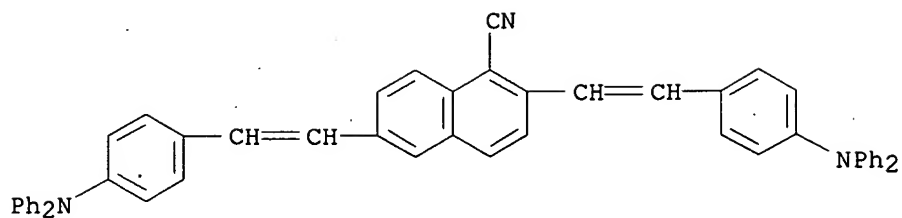
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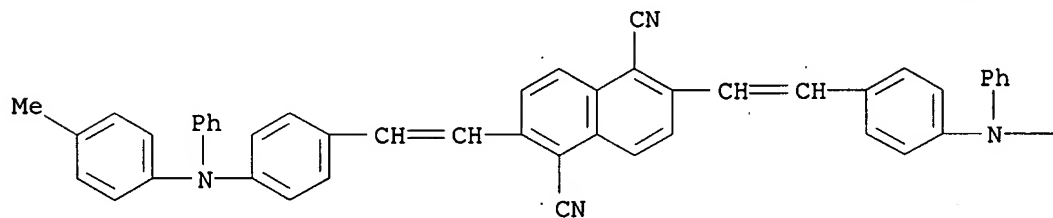


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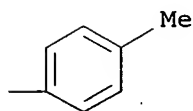


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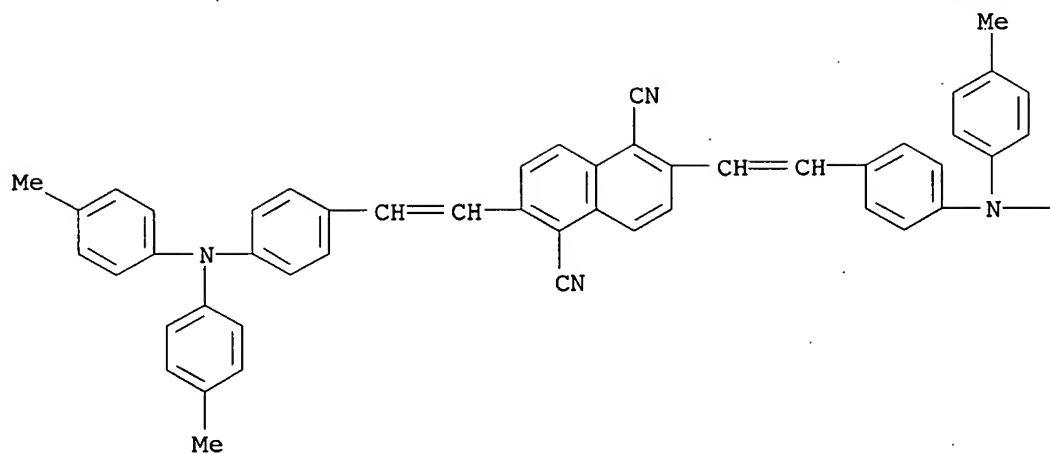


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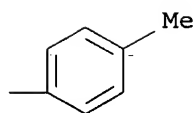


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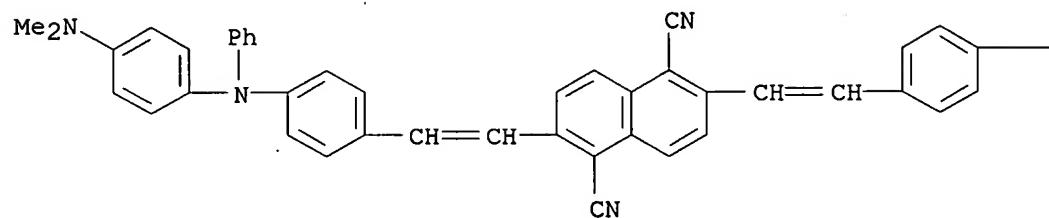
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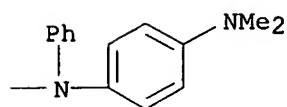
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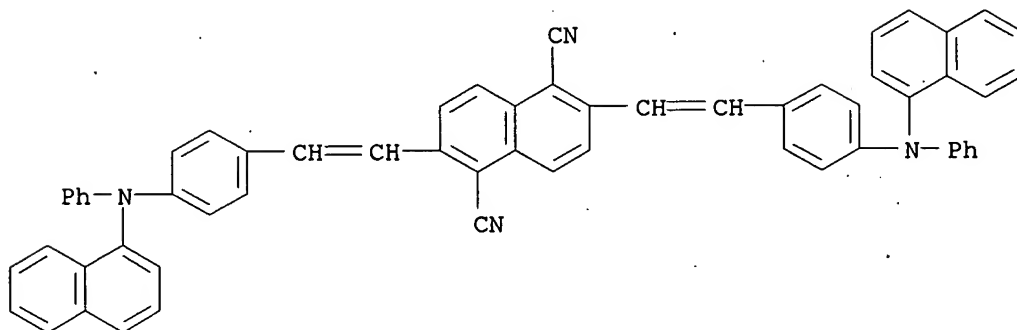


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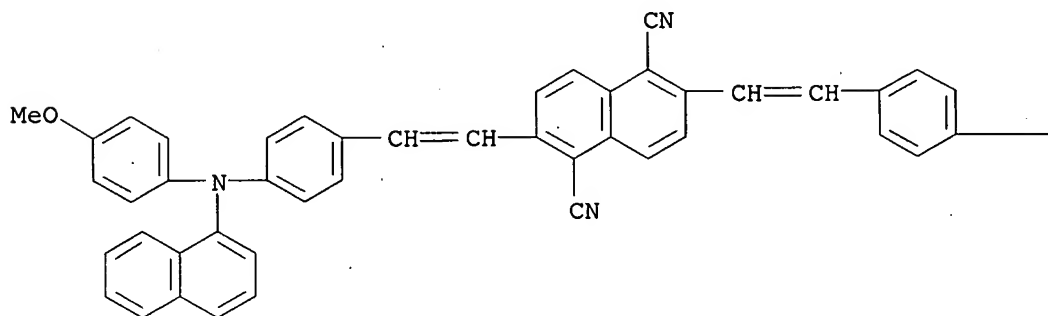
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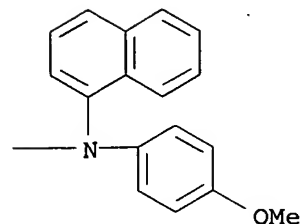


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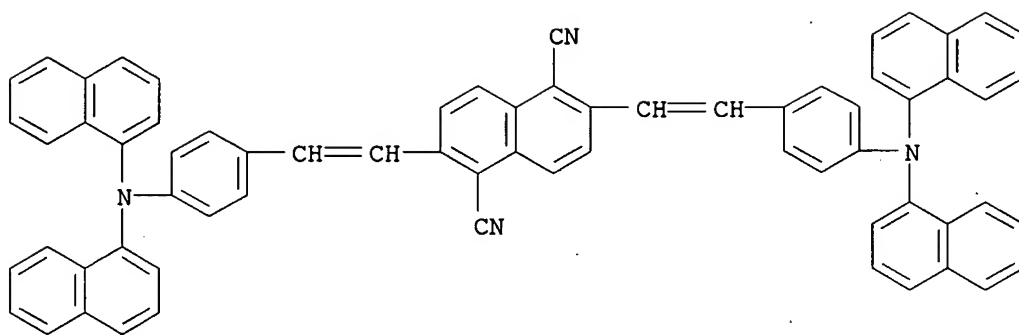
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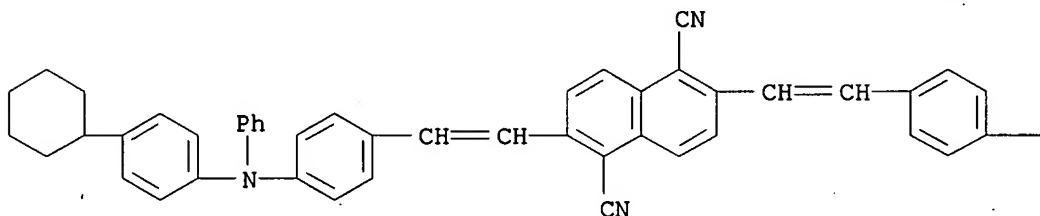
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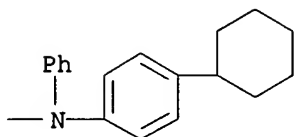


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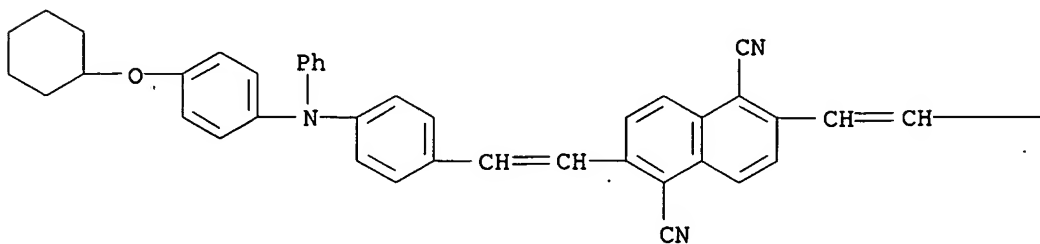


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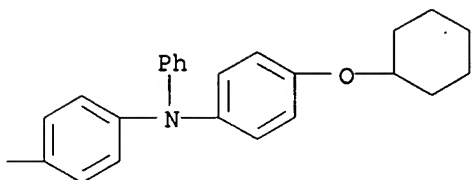


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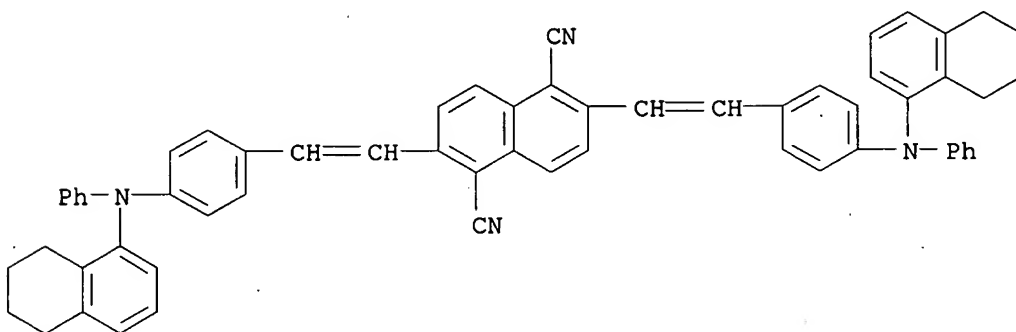


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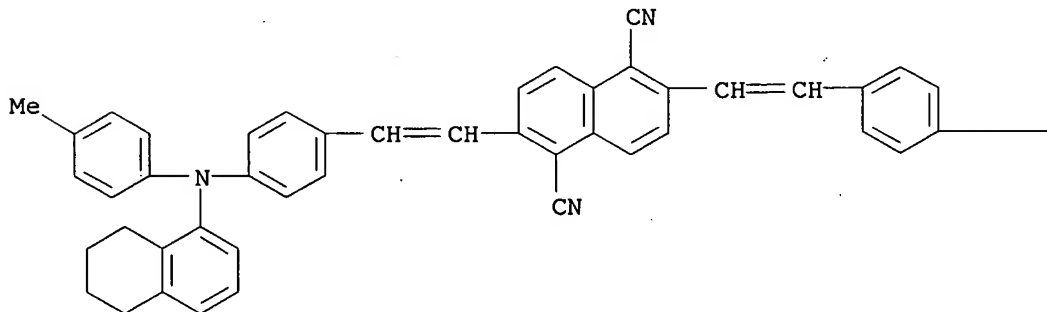
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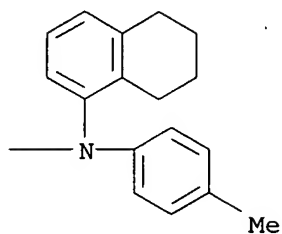
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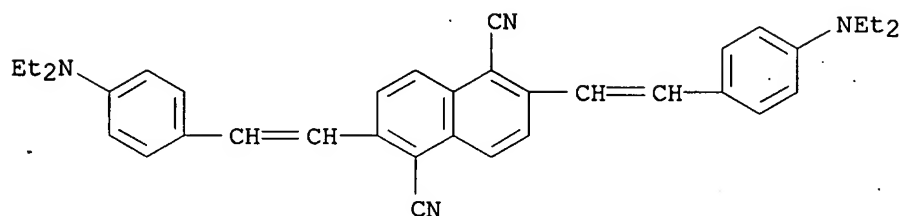
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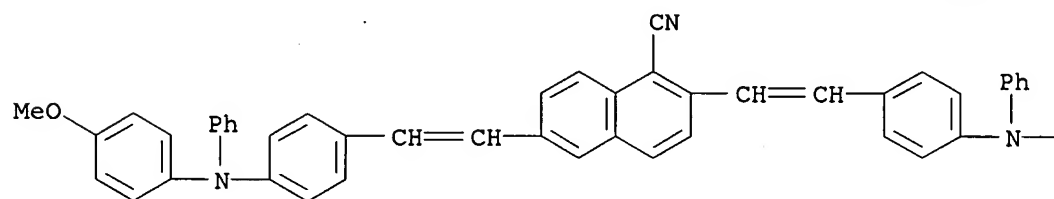


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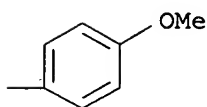


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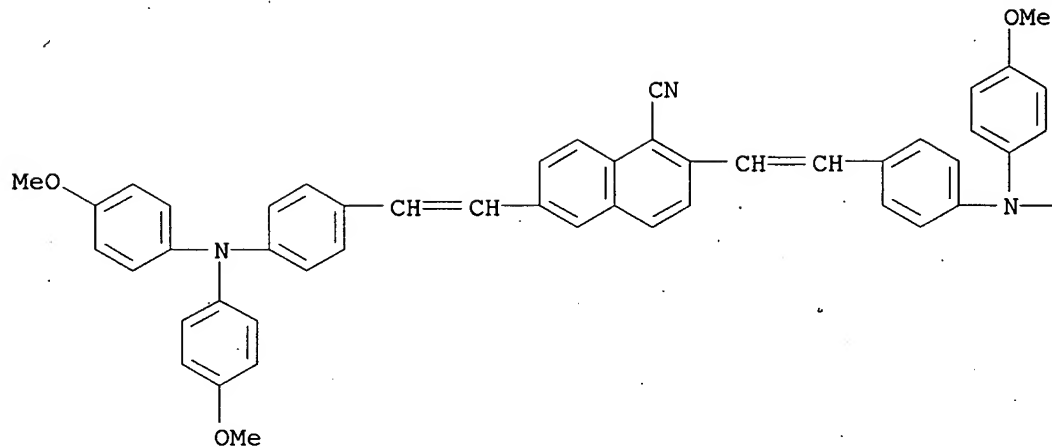


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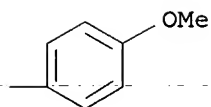


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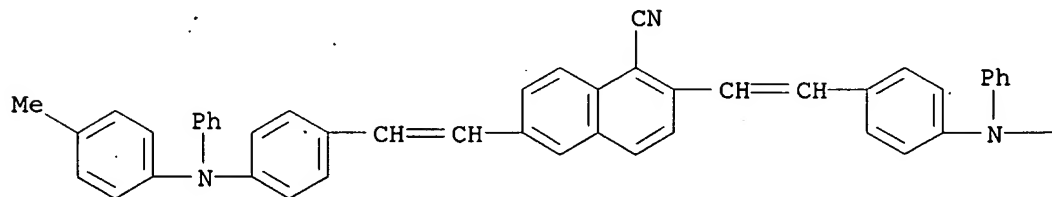


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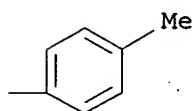


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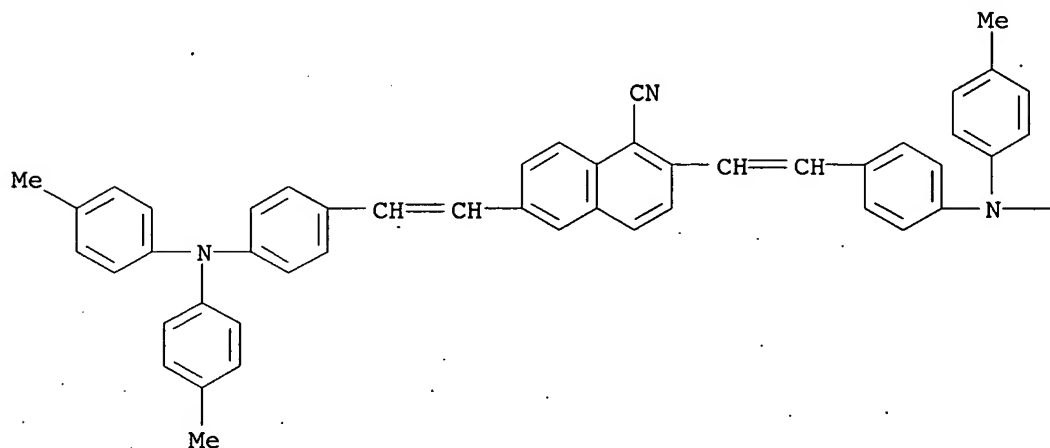
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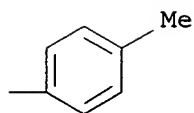
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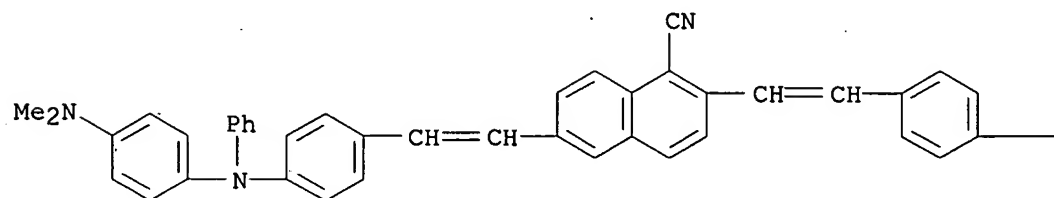
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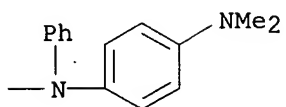
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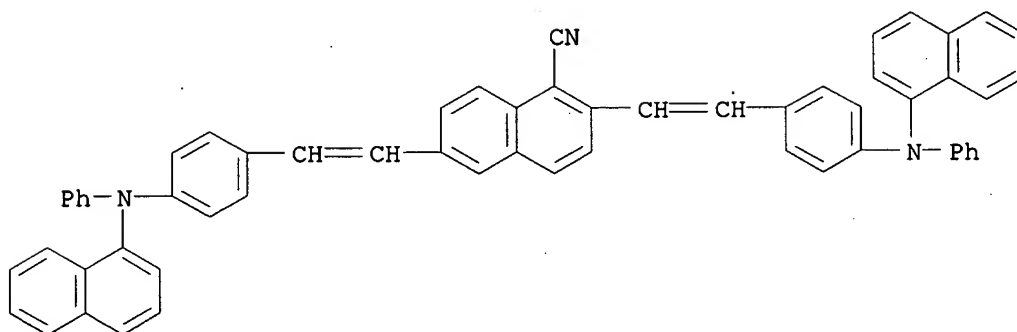


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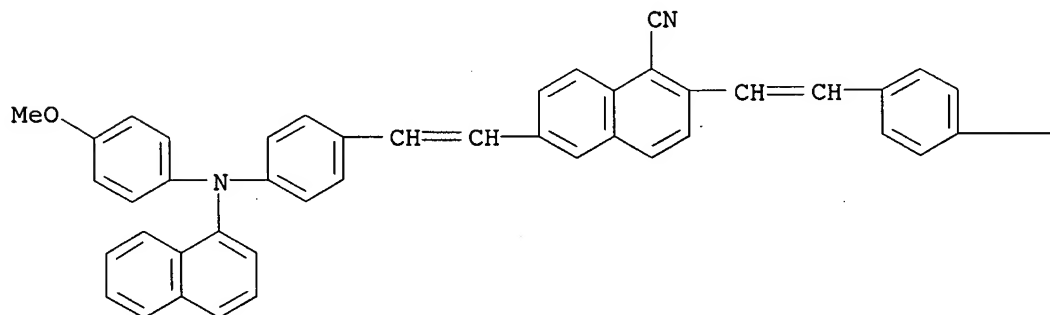
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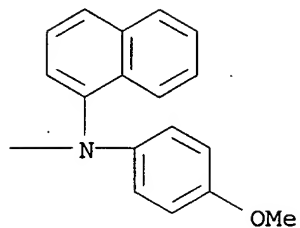
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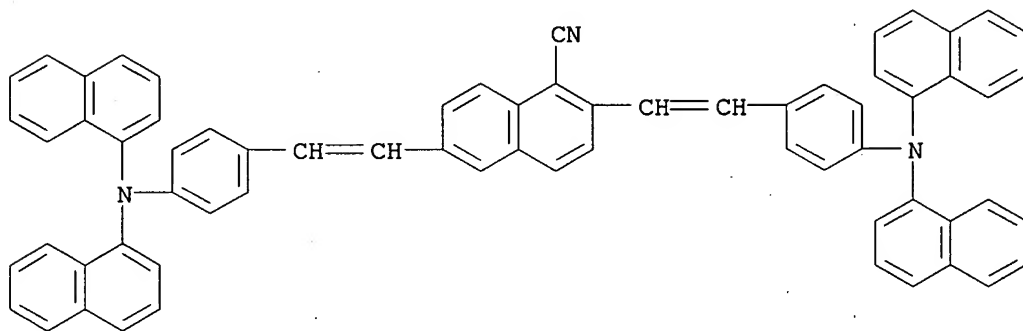
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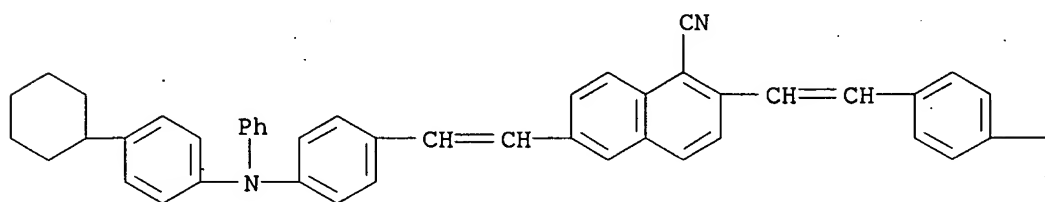
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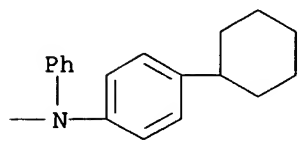
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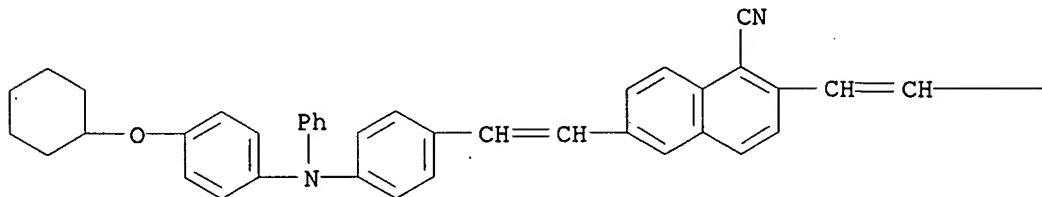
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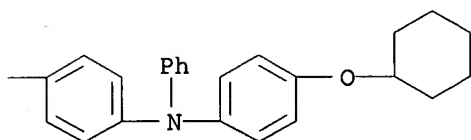
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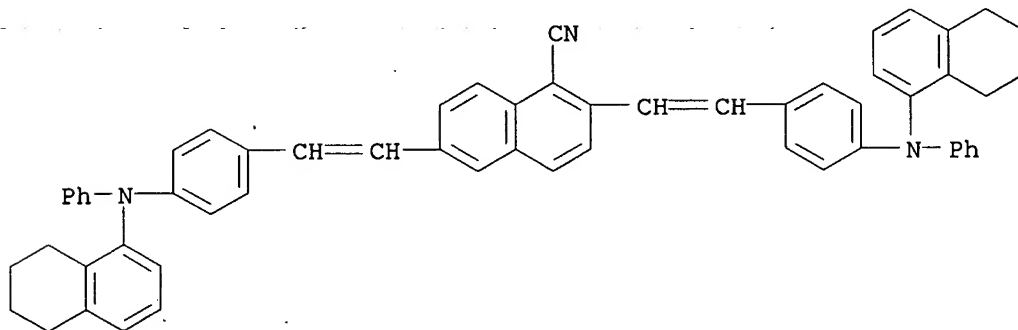


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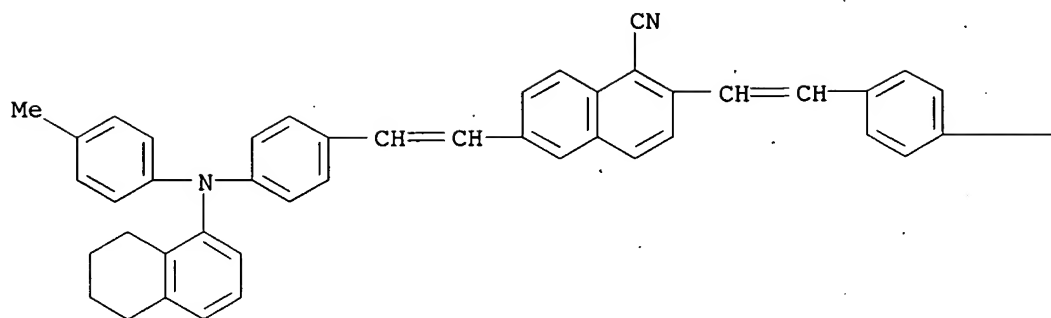
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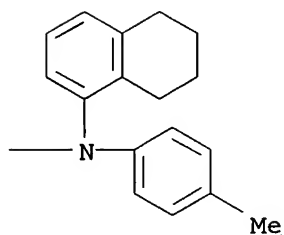
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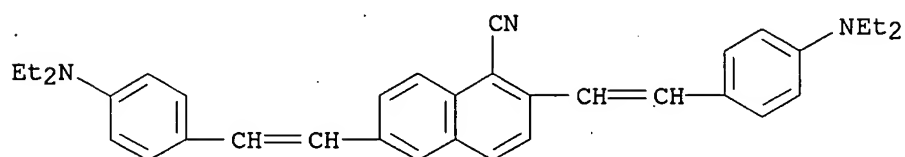


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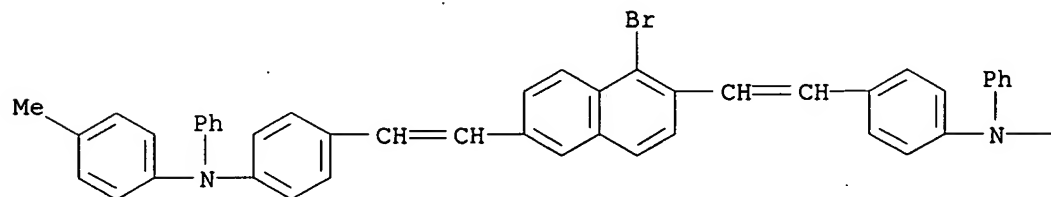
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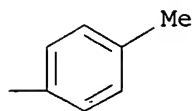
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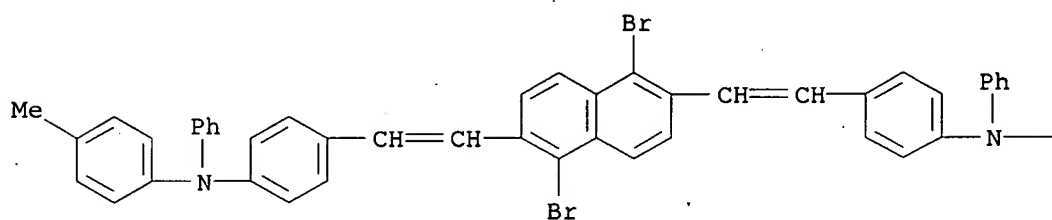


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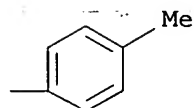


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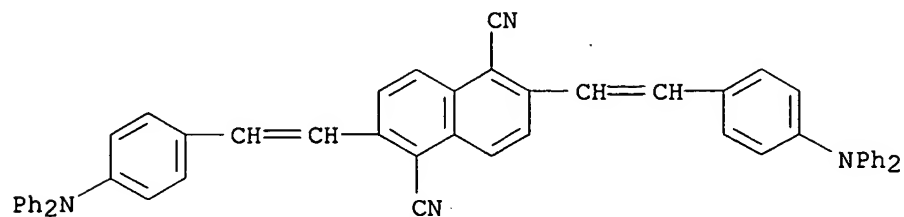
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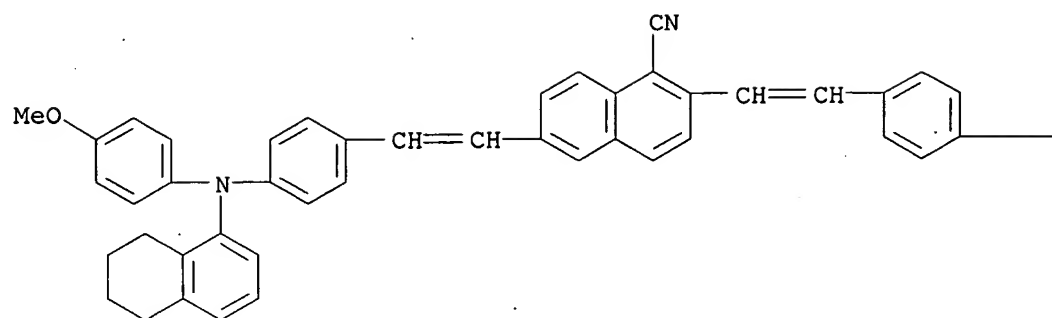


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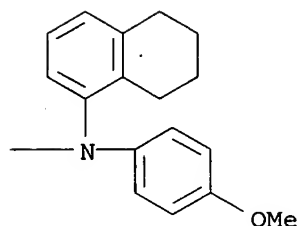


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L22 ANSWER 10 OF 27 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:261095 HCAPLUS

DN 134:280615

TI Preparation of bis(aminostyryl)anthracenes as organic luminescent materials.

IN Ichimura, Mari; Ishibashi, Tadashi; Tamura, Shinichiro

PA Sony Corporation, Japan

SO Eur. Pat. Appl., 145 pp.

CODEN: EPXXDW

DT Patent

LA English

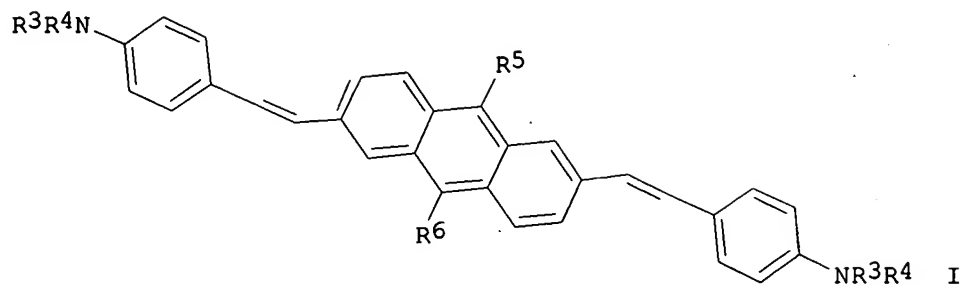
IC ICM C07C255-58

ICS C07C255-59; C07C255-52; C07F009-40; C07F009-54

CC 25-27 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 73, 74

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1090911	A2	20010411	EP 2000-121754	20001005
	EP 1090911	A3	20010808		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001106657	A2	20010417	JP 1999-285254	19991006
PRAI	JP 1999-285254	A	19991006		
OS	MARPAT 134:280615				
GI					



AB Title compds. e.g., (I; R2, R3 = unsubstituted aryl; R1, R4 = substituted aryl; R5, R6 = H, cyano, NO₂, CF₃, halo), were prepd. Thus, 9,10-dicyano-2,6-bis(diethylphosphonomethyl)anthracene (prepn. given) was stirred with NaH in THF/DMF; 4[-N-phenyl-N-(4-methoxyphenyl)amino]benzaldehyde in THF was added followed by 7 h stirring to give 14% I (R2, R3 = Ph; R1, R4 = 4-MeOC₆H₄; R5, R6 = cyano). This showed a fluorescence max. at 645 nm. Schematics of org.

ST aminostyrylanthracene prepn org **luminescent** material; display **electroluminescent** bisaminostyrylanthracene material; anthracene bisaminostyryl prepn org **luminescent** material

IT Phosphors

(**electroluminescent**; prepn. of bis(aminostyryl)anthracenes as org. **luminescent** materials)

IT **Electroluminescent** devices

(materials for **electroluminescent** displays; prepn. of bis(aminostyryl)anthracenes as org. **luminescent** materials)

IT 253868-51-8P 253868-96-1P 253869-00-0P
 321709-36-8P 321709-39-1P 333426-57-6P
 333426-58-7P 333426-59-8P 333426-72-5P
 333426-73-6P 333426-74-7P 333426-75-8P
 333426-76-9P 333426-77-0P 333426-78-1P
 333426-79-2P 333426-80-5P 333426-81-6P
 333426-82-7P 333426-83-8P 333426-84-9P
 333426-85-0P 333426-86-1P 333426-87-2P
 333426-88-3P 333426-89-4P 333426-90-7P
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 333427-05-7P 333427-08-0P 333427-10-4P 333427-12-6P
 333427-16-0P 333427-18-2P 333427-20-6P
 333427-22-8P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(prepn. of bis(aminostyryl)anthracenes as org. **luminescent** materials)

IT 613-26-3 4181-05-9 87755-82-6 89115-21-9 138249-95-3 333426-67-8
 333426-68-9 333426-70-3 333426-71-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of bis(aminostyryl)anthracenes as org. **luminescent** materials)

IT 138308-91-5P 333426-60-1P 333426-61-2P 333426-62-3P 333426-64-5P
 333426-66-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(prepn. of bis(aminostyryl)anthracenes as org. **luminescent** materials)

IT 253868-96-1P 253869-00-0P 321709-36-8P
 321709-39-1P 333426-57-6P 333426-59-8P
 333426-72-5P 333426-73-6P 333426-74-7P
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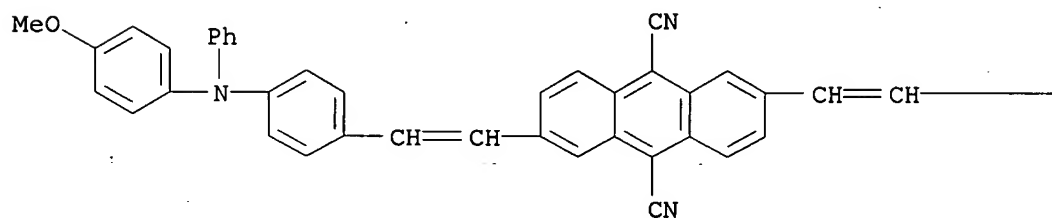
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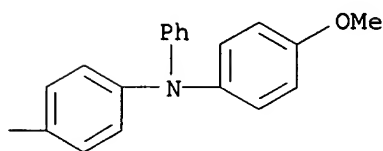
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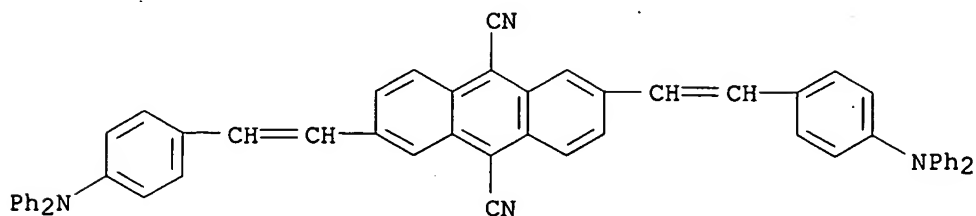


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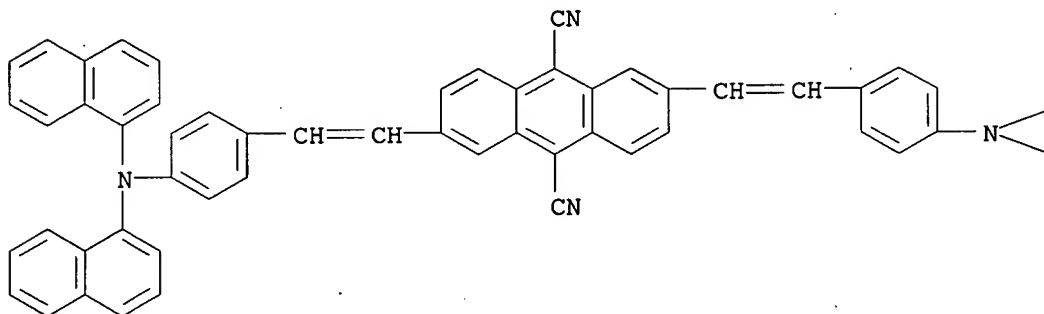
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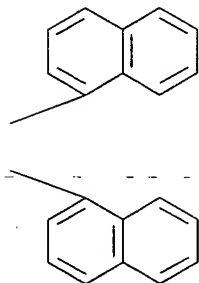
RN 321709-36-8 HCAPLUS

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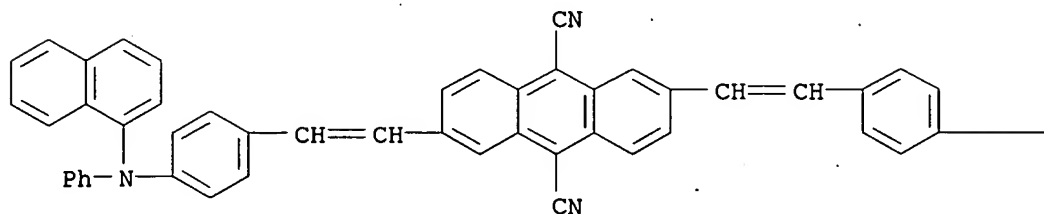
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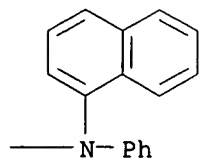
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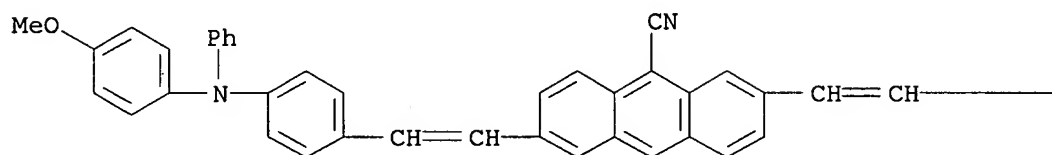
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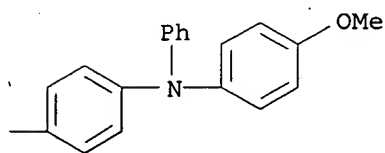
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CN. 9-Anthracenecarbonitrile, 2,6-bis[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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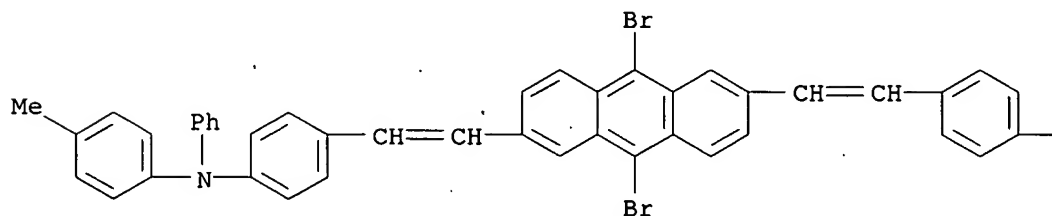
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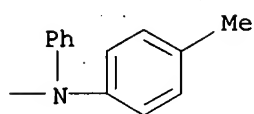
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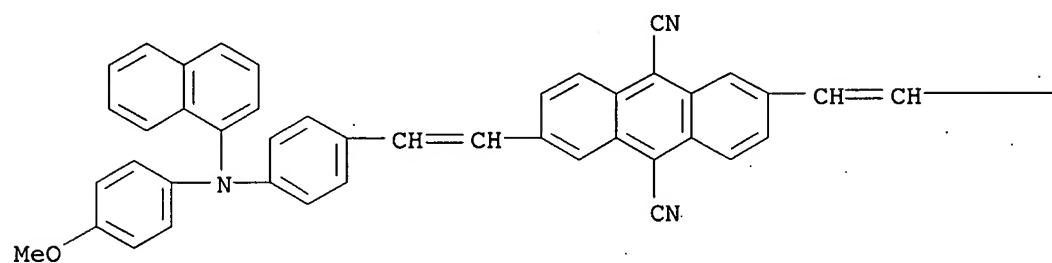
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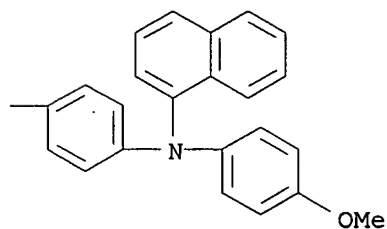
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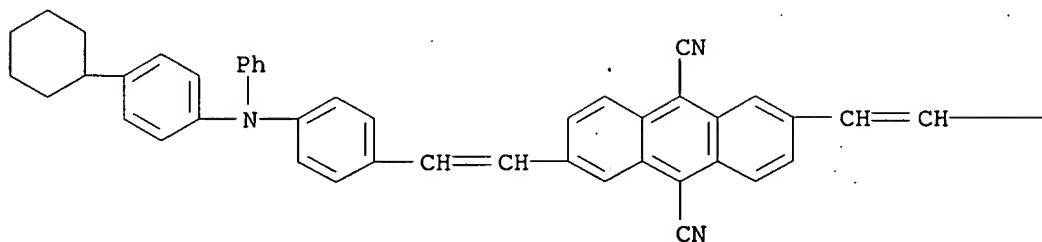
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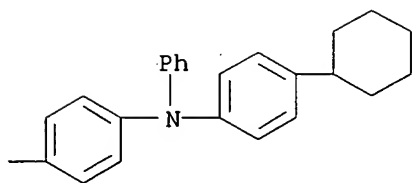
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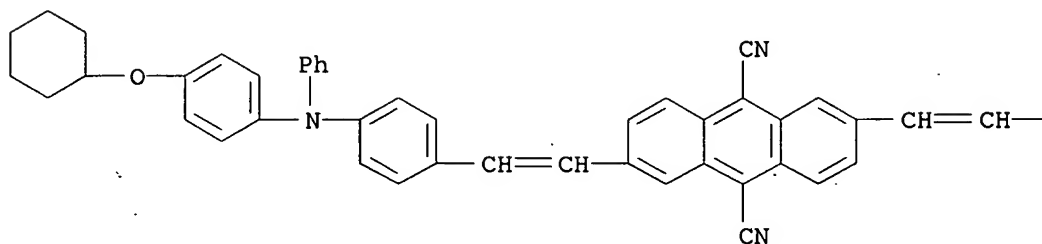
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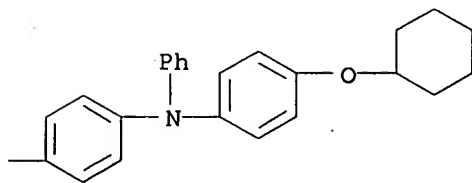
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CN 9,10-Anthracenedicarbonitrile, 2,6-bis[2-[4-[[4-(cyclohexyloxy)phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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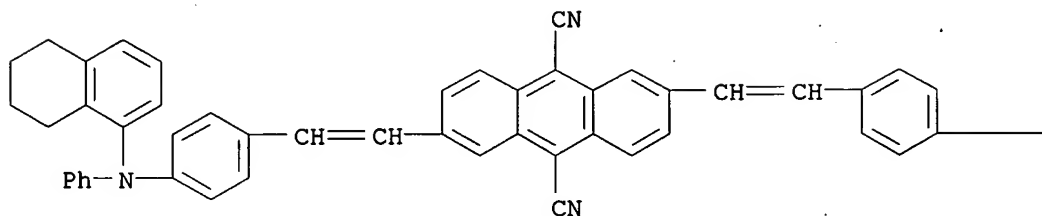


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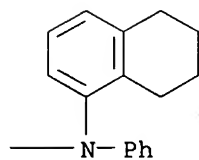
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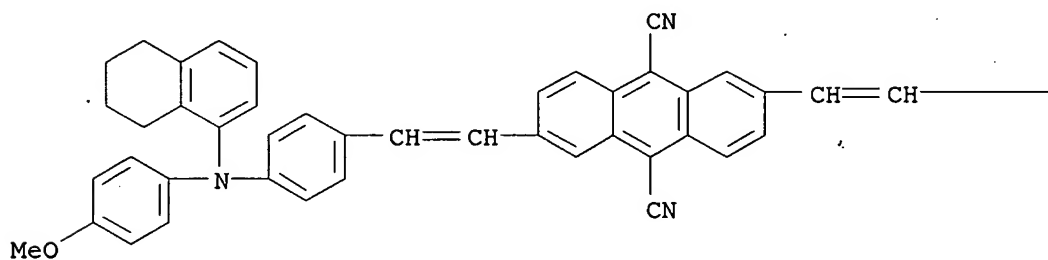
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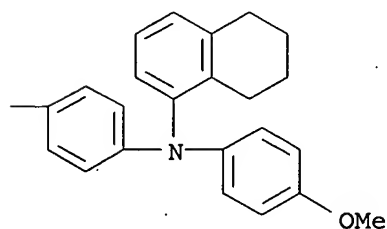
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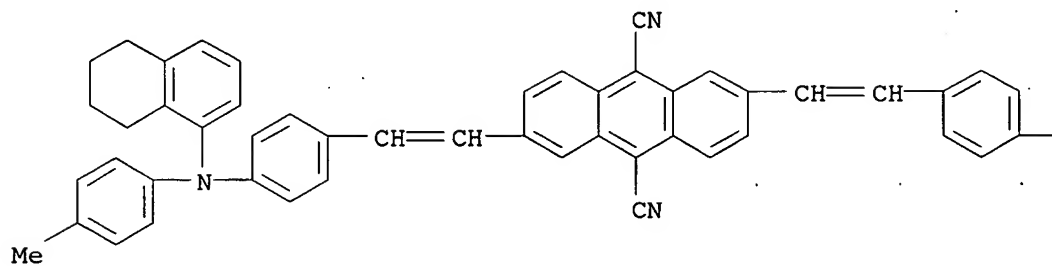


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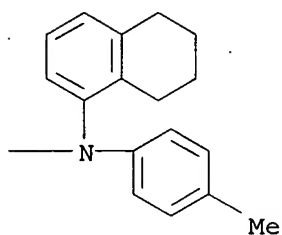
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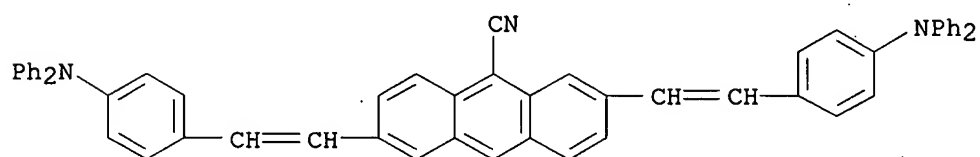


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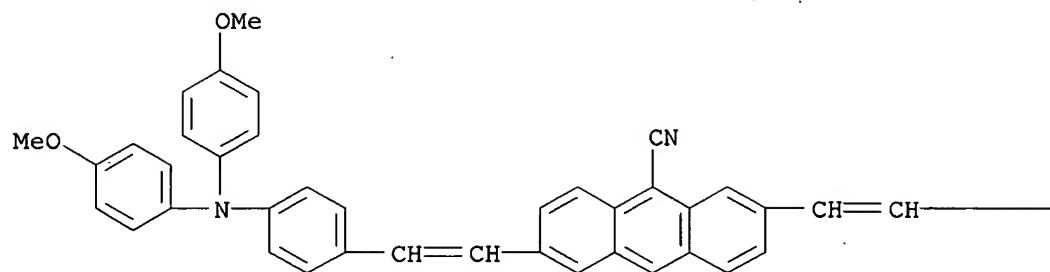
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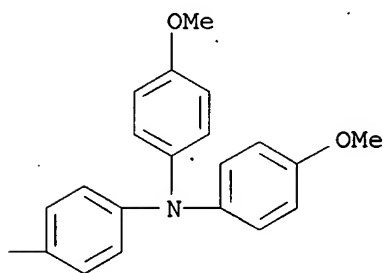
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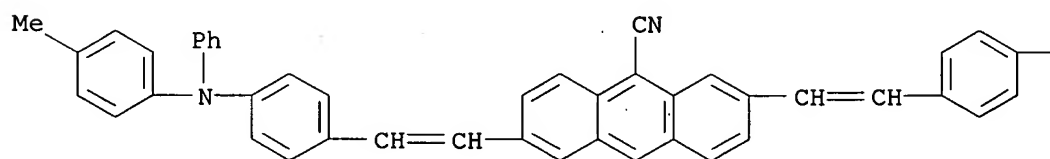
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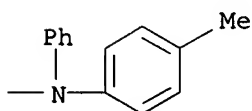
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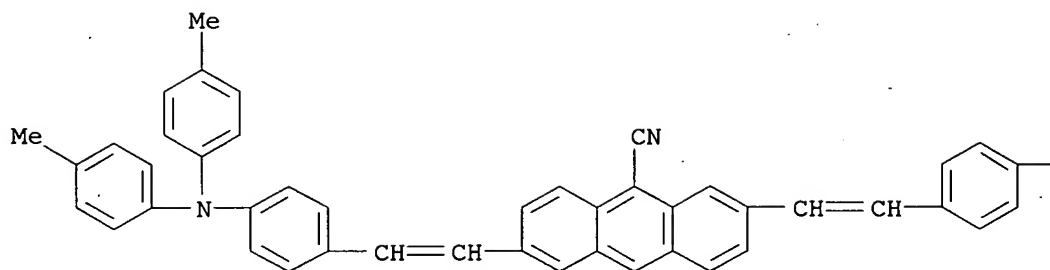
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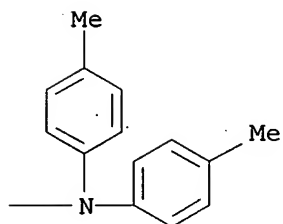
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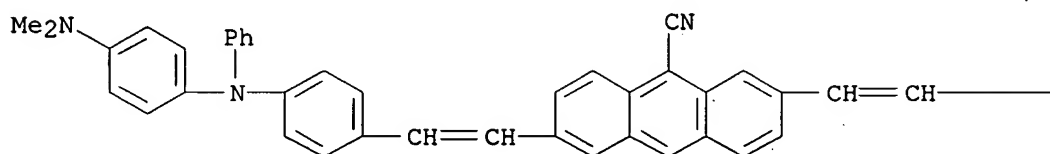


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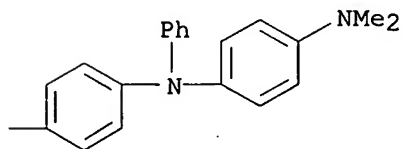


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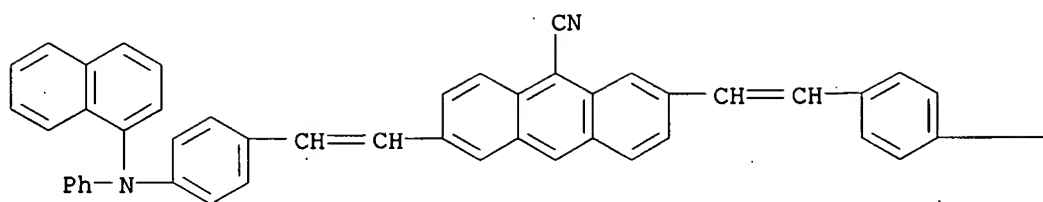


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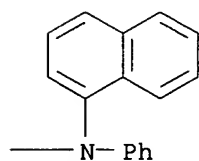


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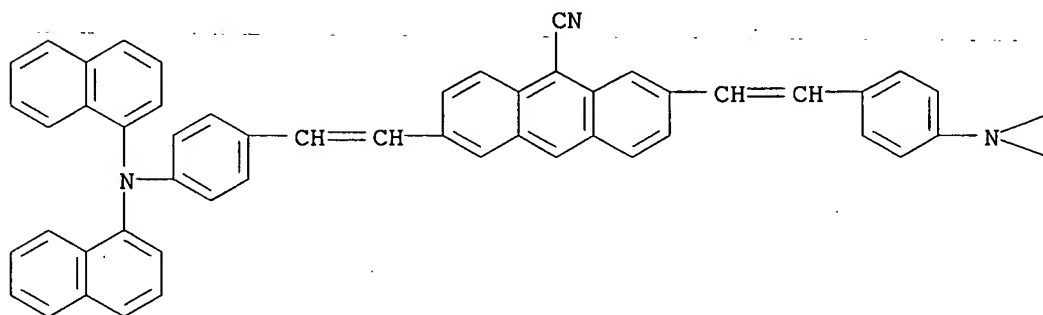


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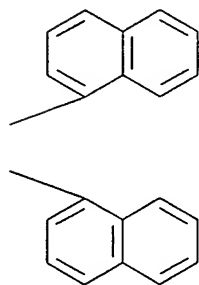


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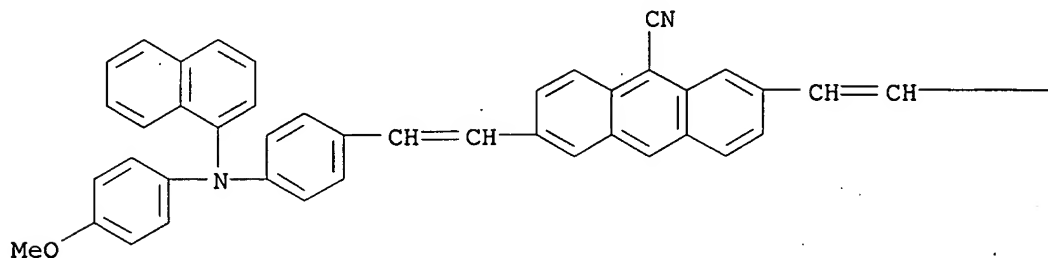
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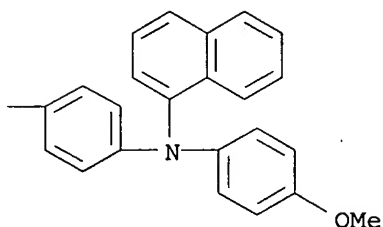
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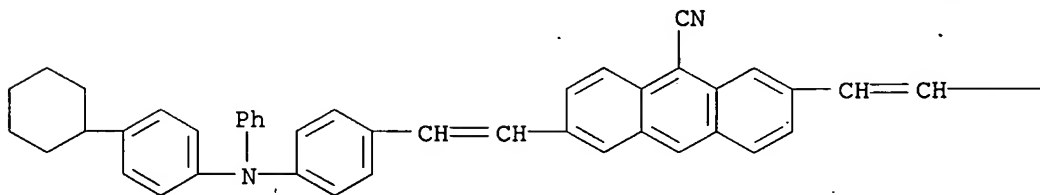
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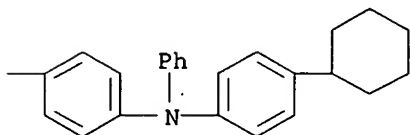
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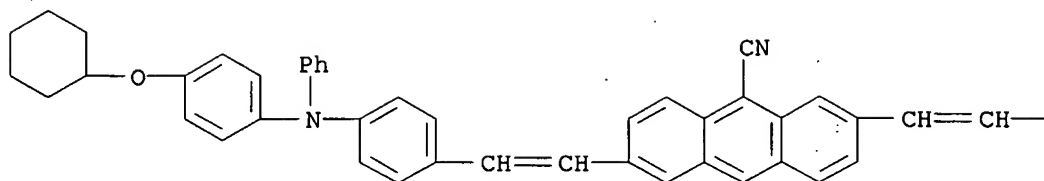
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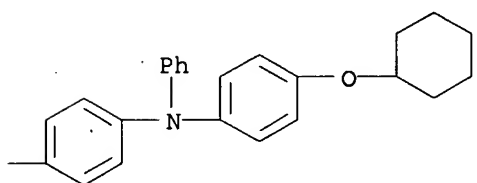
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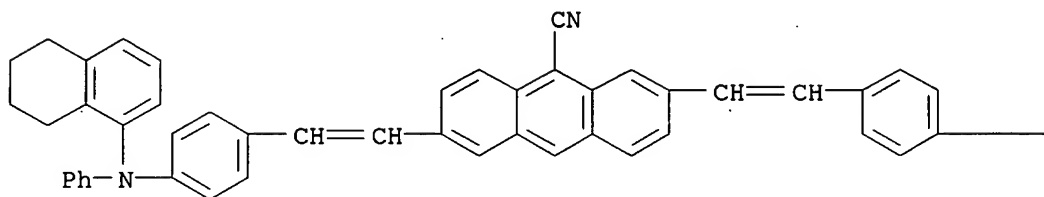
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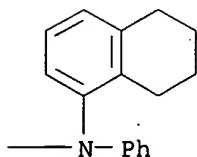
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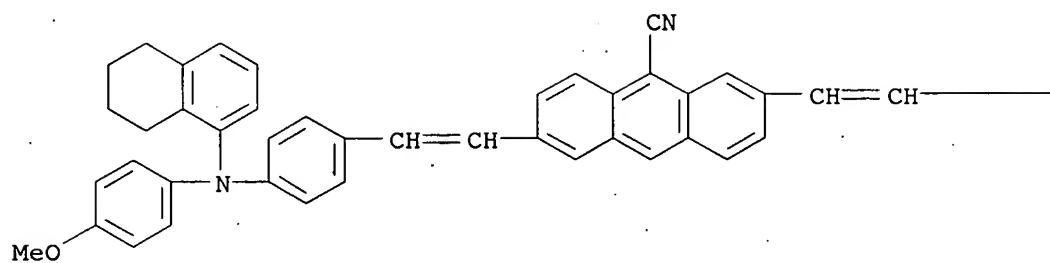
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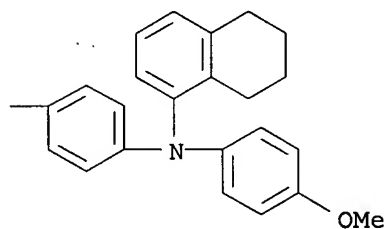
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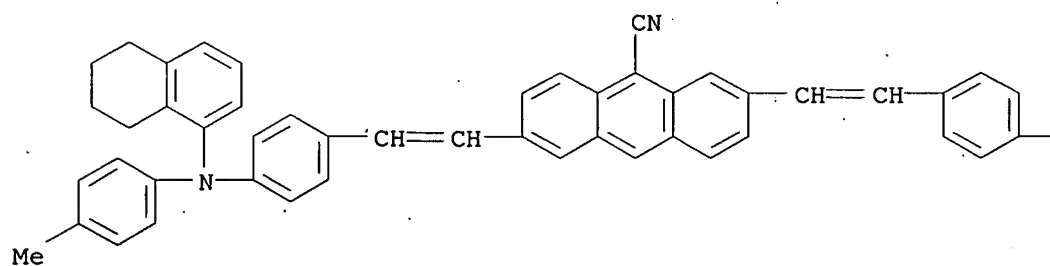


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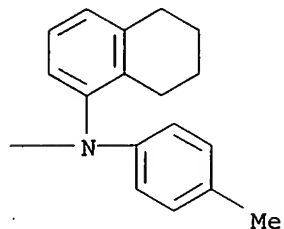


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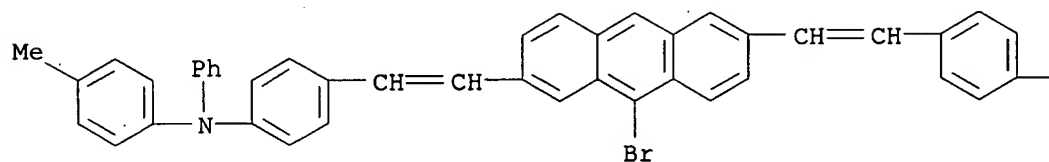
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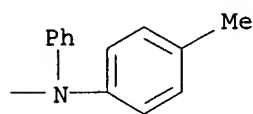
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CN Benzenamine, 4,4'-[(9-bromo-2,6-anthracenediyl)di-2,1-ethenediyl]bis[N-(4-methylphenyl)-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A



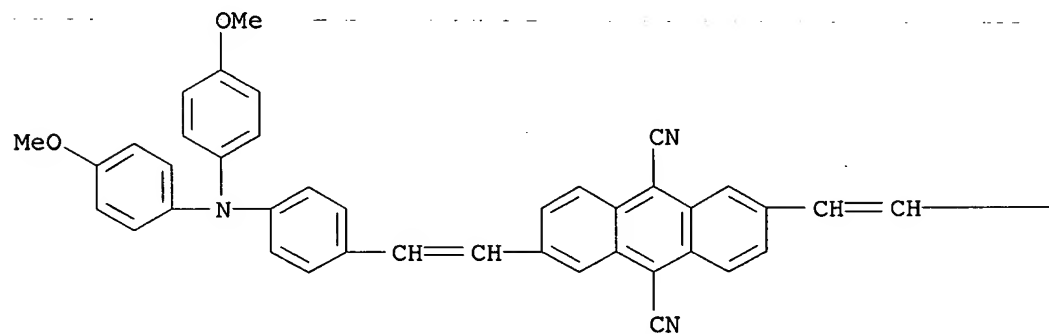
PAGE 1-B



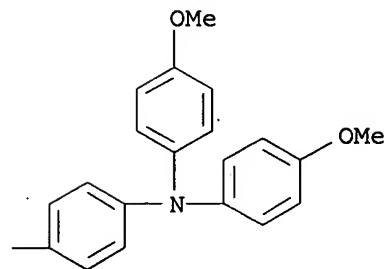
RN 333427-16-0 HCAPLUS

CN 9,10-Anthracenedicarbonitrile, 2,6-bis[2-[4-[bis(4-methoxyphenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



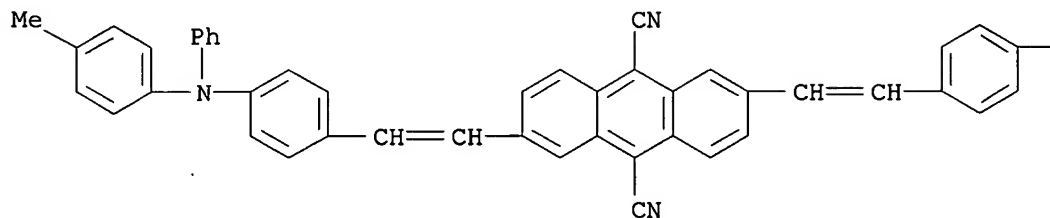
PAGE 1-B



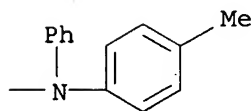
RN 333427-18-2 HCAPLUS

CN 9,10-Anthracenedicarbonitrile, 2,6-bis[2-[4-[(4-methylphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



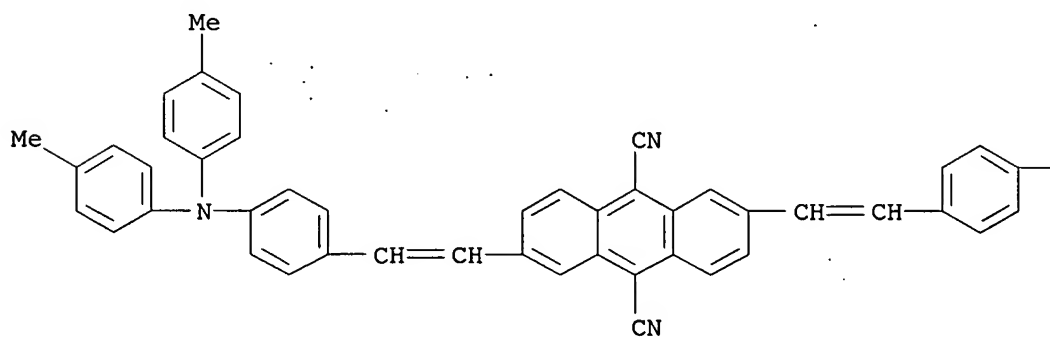
PAGE 1-B



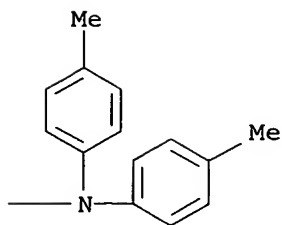
RN 333427-20-6 HCAPLUS

CN 9,10-Anthracenedicarbonitrile, 2,6-bis[2-[4-[bis(4-methylphenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

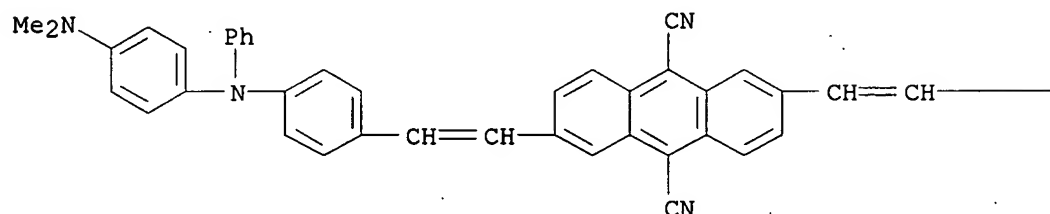


PAGE 1-B

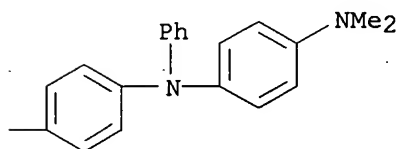


RN 333427-22-8 HCAPLUS
 CN 9,10-Anthracenedicarbonitrile, 2,6-bis[2-[4-[[4-(dimethylamino)phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L22 ANSWER 11 OF 27 HCAPLUS COPYRIGHT 2003 ACS
 AN 2001:184532 HCAPLUS
 DN 135:68307
 TI Synthesis and emission characteristics of novel red **electroluminescent** dye containing CN group
 AU Kim, Dong Uk; Kim, Byung Moon
 CS Department of Science Education, Taegu National University of Education, Taegu, 705-715, S. Korea
 SO Bulletin of the Korean Chemical Society (2001), 22(2), 228-230
 CODEN: BKCSDE; ISSN: 0253-2964
 PB Korean Chemical Society
 DT Journal
 LA English
 CC 73-12 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 25, 76
 AB A new org. **electroluminescent** dye, D-CN was synthesized and showed excellent **electroluminescent** efficiencies. Two kinds devices, a single-layer and double-layer, were fabricated for the emission characteristics of the org. material. Bright red luminance was obsd. in the both devices. The D-CN material had bipolar characteristics predicted from the mol. structure with 2 CN groups and 2 amine groups.
 ST aminocyanostilbene dye LED red **electroluminescence**
 IT **Luminescence, electroluminescence**
 (spectra; synthesis and emission characteristics of novel red **electroluminescent** dye contg. CN group)
 IT Current density
Electroluminescent devices
 (synthesis and emission characteristics of novel red

electroluminescent dye contg. CN group)

IT 138372-67-5
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)
 (electron transport layer; emission characteristics of novel red **electroluminescent dye contg. CN group used in LED with)**

IT 345908-02-3
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)
 (emission characteristics of novel red **electroluminescent dye contg. CN group used in LED)**

IT **232948-26-4P**
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
 (synthesis and emission characteristics of novel red **electroluminescent dye contg. CN group)**

IT 104-94-9, 4-Aminomethoxybenzene 591-50-4, Iodobenzene 622-75-3, 1,4-Benzenediacetonitrile
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (synthesis and emission characteristics of novel red **electroluminescent dye contg. CN group)**

IT 4316-51-2P, 4-Methoxytriphenylamine 87755-82-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (synthesis and emission characteristics of novel red **electroluminescent dye contg. CN group)**

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

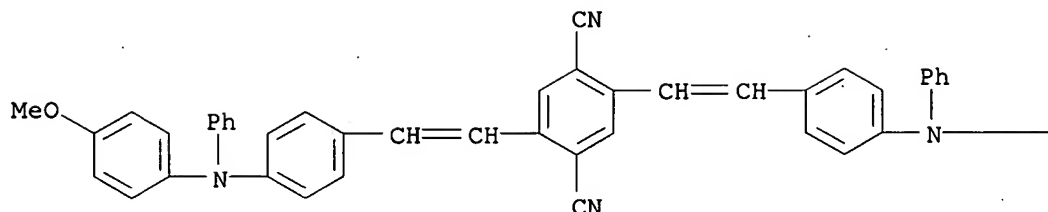
- (1) Adachi, C; Jpn J Appl Phys 1988, V27, PL296
- (2) Burroughes, J; Nature 1990, V347, P539 HCAPLUS
- (3) Cho, H; Adv Mater 1997, V9, P326 HCAPLUS
- (4) Do, L; J Appl Phys 1995, V76, P5118
- (5) Hosokawa, C; Appl Phys Lett 1995, V67, P3853 HCAPLUS
- (6) Kim, D; Polymer 1995, V36, P2481 HCAPLUS
- (7) Sato, Y; IEEE J Sel Top Quan Ele 1998, V4, P40 HCAPLUS
- (8) Shoustikov, A; IEEE J Sel Top Quan Ele 1998, V4, P3 HCAPLUS
- (9) Tang, C; Appl Phys Lett 1987, V51, P913 HCAPLUS
- (10) Tang, C; J Appl Phys 1989, V65, P3610 HCAPLUS
- (11) Tsutsui, T; Inorganic and Organic Electroluminescence 1996, P101 HCAPLUS
- (12) Zyung, T; Chem Mater 1995, V7, P1499 HCAPLUS

IT **232948-26-4P**
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
 (synthesis and emission characteristics of novel red **electroluminescent dye contg. CN group)**

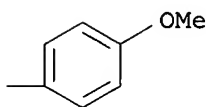
RN 232948-26-4 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L22 ANSWER 12 OF 27 HCAPLUS COPYRIGHT 2003 ACS
 AN 2001:111301 HCAPLUS
 DN 134:170612
 TI Preparation of julolidine-substituted styryl compounds useful as **electroluminescent** substances and their intermediates
 IN Johnson, Karen A.
 PA Sony Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 20 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C07D455-04
 ICS C09K011-06; H05B033-14
 CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 27, 31

FAN.CNT 1

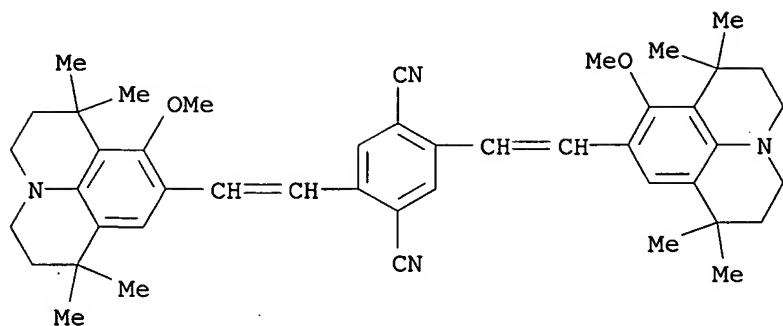
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001039977	A2	20010213	JP 1999-216305	19990730
PRAI	JP 1999-216305		19990730		
OS	MARPAT 134:170612				
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The compds. I or II (X1, X2 = H, OH, alkoxy; R1-R8 = lower alkyl; R9, R10 = electron-withdrawing group), which emit **electroluminescence** from green to red and are useful for **electroluminescent** devices, are prepd. by treating formyljulolidines III (X = CHO; X3 = H, OH, alkoxy; R11-R14 = lower alkyl) or III (X = H; X3 = CHO; R11-R14 = lower alkyl) (IV) with diphosphonates V (R15, R16 = hydrocarbyl; R15 .noteq. R16; R17,

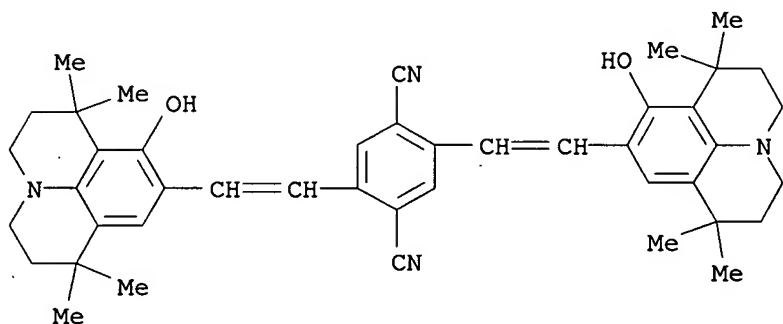
R18 = electron-withdrawing group; Y = halo) or diphosphonium VI. IV are prepd. by formylating III (X3 = R = H; R11-R14 = same as in IV) with adducts of DMF with phosphoryl halides or by treating aniline or m-RC6H4NH2 (R = hydrocarbyl, halo, alkoxy, etc.) with 1-halo-3,3-dialkyl-2-propenes, treating the resulting 3-[N,N-bis(3,3-dialkyl-2-propenyl)amine] salts with alkylsulfonic acids, neutralizing the resulting 1,1,7,7-tetraalkyljulolidine alkylsulfonates with alkalies, and then formulating the resulting 1,1,7,7-tetraalkyljulolidines. I (R1 = R2 = R3 = R4 = R5 = R6 = R7 = R8 = Me, X1 = X2 = OMe) (prepn. given) showed max. UV-visible absorption spectrum and max. fluorescence spectrum 508 and 600 nm, resp.

- ST julolidine substituted styryl compd prepn **electroluminescent** device; formyljulolidine Wittig reaction xylylenediphosphonate
- IT Wittig reaction
(Wittig-Horner reaction; prepn. of julolidine-substituted styryl compds. useful as **electroluminescent** substances by Wittig reaction of formyljulolidines)
- IT Phosphors
(**electroluminescent**; prepn. of julolidine-substituted styryl compds. useful as **electroluminescent** substances by Wittig reaction of formyljulolidines)
- IT **Electroluminescent** devices
Wittig reaction
(prepn. of julolidine-substituted styryl compds. useful as **electroluminescent** substances by Wittig reaction of formyljulolidines)
- IT 322475-09-2P 322475-14-9P 322475-17-2P
322475-22-9P 322475-23-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of julolidine-substituted styryl compds. useful as **electroluminescent** substances by Wittig reaction of formyljulolidines)
- IT 62-53-3, Aniline, reactions 122-52-1, Triethyl phosphite 503-60-6
603-35-0, Triphenylphosphine, reactions 39095-25-5, 2,5-Dimethylterephthalonitrile 115662-09-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of julolidine-substituted styryl compds. useful as **electroluminescent** substances by Wittig reaction of formyljulolidines)
- IT 64746-04-9P 216978-79-9P 232948-23-1P 322475-18-3P 322475-19-4P
322475-20-7P 322475-21-8P 325722-27-8P 325722-28-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of julolidine-substituted styryl compds. useful as **electroluminescent** substances by Wittig reaction of formyljulolidines)
- IT 322475-09-2P 322475-14-9P 322475-17-2P
322475-22-9P 322475-23-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of julolidine-substituted styryl compds. useful as **electroluminescent** substances by Wittig reaction of formyljulolidines)
- RN 322475-09-2 HCAPLUS
- CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-(2,3,6,7-tetrahydro-8-methoxy-1,1,7,7-tetramethyl-1H,5H-benzo[ij]quinolizin-9-yl)ethenyl]- (9CI) (CA INDEX NAME)



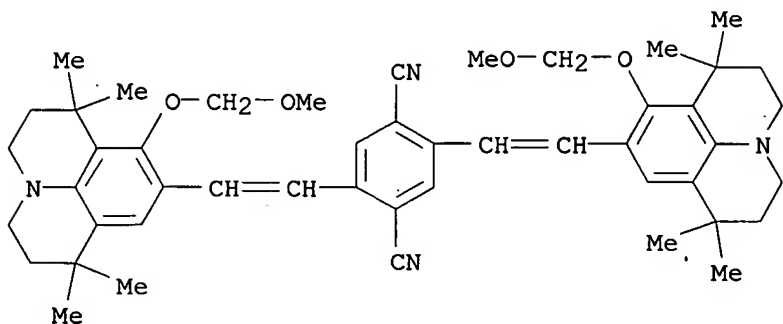
RN 322475-14-9 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-(2,3,6,7-tetrahydro-8-hydroxy-1,1,7,7-tetramethyl-1H,5H-benzo[ij]quinolizin-9-yl)ethenyl]- (9CI) (CA INDEX NAME)



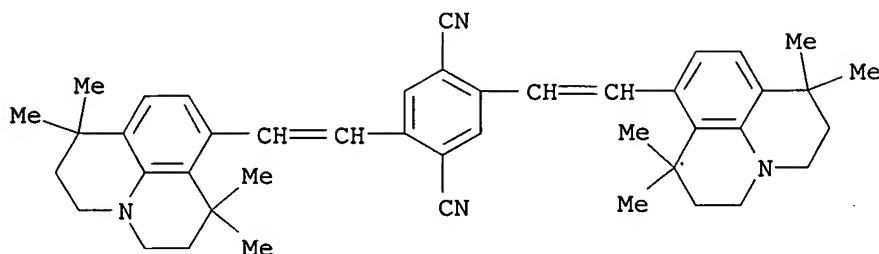
RN 322475-17-2 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[2-(2,3,6,7-tetrahydro-8-(methoxymethoxy)-1,1,7,7-tetramethyl-1H,5H-benzo[ij]quinolizin-9-yl)ethenyl]- (9CI) (CA INDEX NAME)

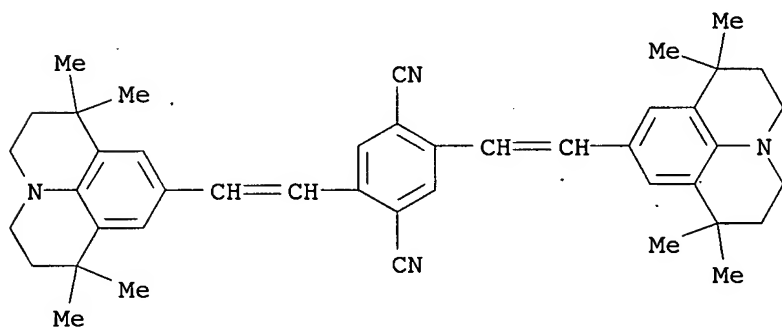


RN 322475-22-9 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-(2,3,6,7-tetrahydro-1,1,7,7-tetramethyl-1H,5H-benzo[ij]quinolizin-8-yl)ethenyl]- (9CI) (CA INDEX NAME)



RN 322475-23-0 HCAPLUS
 CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-(2,3,6,7-tetrahydro-1,1,7,7-tetramethyl-1H,5H-benzo[ij]quinolizin-9-yl)ethenyl]- (9CI) (CA INDEX NAME)



L22 ANSWER 13 OF 27 HCAPLUS COPYRIGHT 2003 ACS
 AN 2001:78139 HCAPLUS
 DN 134:155053
 TI Organic **electroluminescent** device
 IN Ishibashi, Tadashi; Ichimura, Mari; Tamura, Shinichiro
 PA Sony Corp., Japan
 SO Eur. Pat. Appl., 47 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM H01L051-20
 ICS C09K011-06
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 28, 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1073128	A2	20010131	EP 2000-402174	20000728
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001043974	A2	20010216	JP 1999-216307	19990730
	TW 468361	B	20011211	TW 2000-89113131	20000703
	US 6479171	B1	20021112	US 2000-624769	20000725
	CN 1283074	A	20010207	CN 2000-122138	20000731
PRAI	JP 1999-216307	A	19990730		

OS MARPAT 134:155053
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Org. **electroluminescent** devices comprising an org. layer having a **luminescent** region sandwiched between an anode and a cathode are described in which the org. layer comprises a julolidyl-substituted styryl compd. represented by general formulas I or II (X1 and X2 = independently selected H, hydroxyl group, or (un)satd. (un)substituted alkoxyl, alkyl, amino, alkylamino, or (un)substituted aryl; R1-8 = independently selected lower alkyls; and R9-12 = independently selected groups including .gtoreq.1 electron attracting group).

ST org **electroluminescent** device julolidyl substituted styryl compd

IT **Electroluminescent** devices
(org. **electroluminescent** devices using julolidyl-substituted styryl compds.)

IT 2085-33-8, Tris(8-hydroxyquinolinato)aluminum 7439-95-4, Magnesium, uses 7440-22-4, Silver, uses 65181-78-4, N,N'-Diphenyl-N,N'-bis(3-methylphenyl)-1,1'-biphenyl-4,4'-diamine 123847-85-8, .alpha.-NPD 322475-10-5 322475-11-6 322475-12-7 322475-13-8 322475-15-0
RL: DEV (Device component use); USES (Uses)
(org. **electroluminescent** devices using julolidyl-substituted styryl compds.)

IT 322475-17-2P
RL: DEV (Device component use); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(org. **electroluminescent** devices using julolidyl-substituted styryl compds.)

IT 322475-09-2P 322475-14-9P
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(org. **electroluminescent** devices using julolidyl-substituted styryl compds.)

IT 322475-22-9P 322475-23-0P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(org. **electroluminescent** devices using julolidyl-substituted styryl compds.)

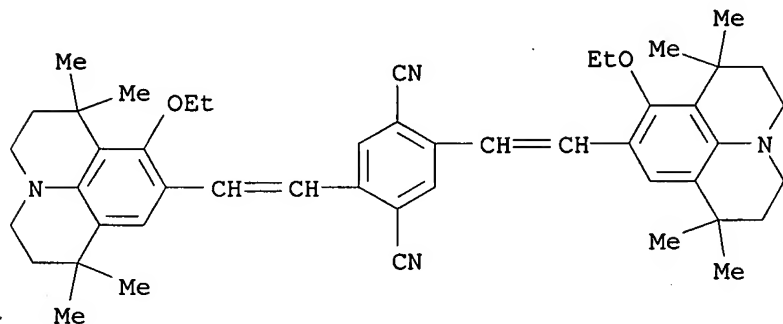
IT 322475-19-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(org. **electroluminescent** devices using julolidyl-substituted styryl compds.)

IT 216978-79-9P 322475-18-3P 322475-20-7P 322475-21-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(org. **electroluminescent** devices using julolidyl-substituted styryl compds.)

IT 322475-10-5 322475-11-6 322475-12-7 322475-13-8 322475-15-0
RL: DEV (Device component use); USES (Uses)
(org. **electroluminescent** devices using julolidyl-substituted styryl compds.)

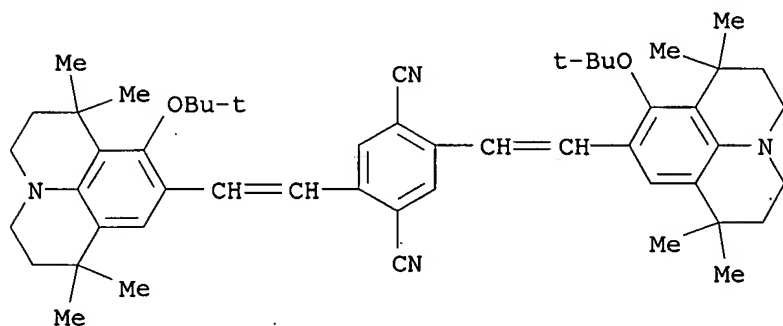
RN 322475-10-5 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-(8-ethoxy-2,3,6,7-tetrahydro-1,1,7,7-tetramethyl-1H,5H-benzo[ij]quinolizin-9-yl)ethenyl]- (9CI) (CA INDEX NAME)



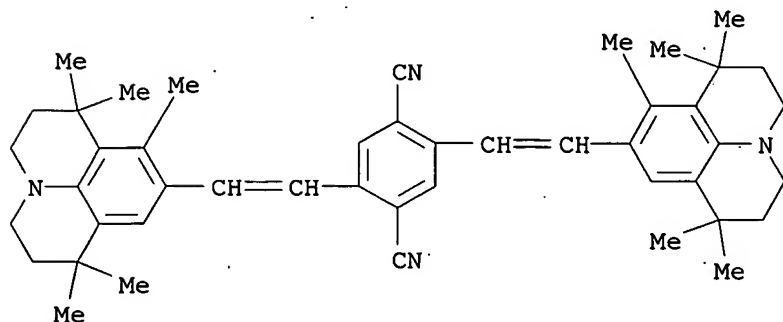
RN 322475-11-6 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[8-(1,1-dimethylethoxy)-2,3,6,7-tetrahydro-1,1,7,7-tetramethyl-1H,5H-benzo[ij]quinolizin-9-yl]ethenyl]- (9CI) (CA INDEX NAME)



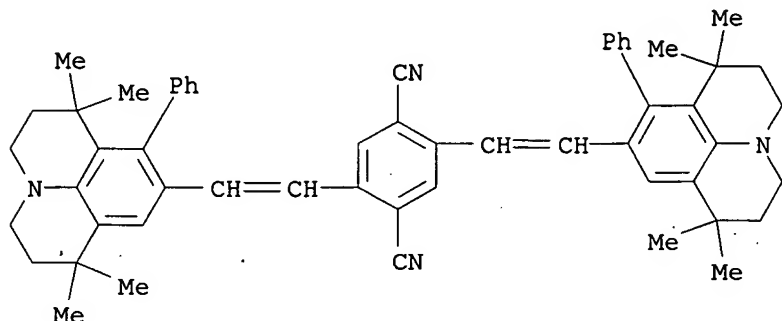
RN 322475-12-7 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-(2,3,6,7-tetrahydro-1,1,7,7,8-pentamethyl-1H,5H-benzo[ij]quinolizin-9-yl)ethenyl]- (9CI) (CA INDEX NAME)



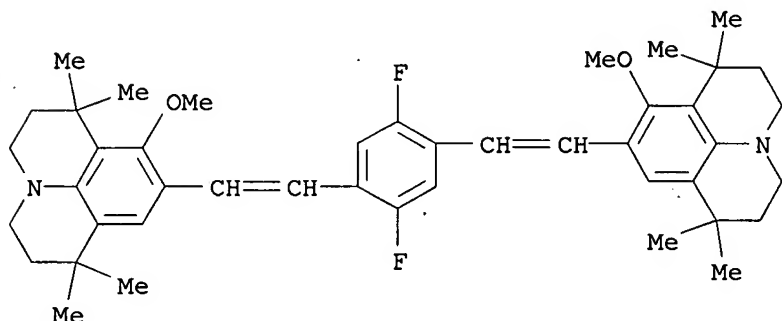
RN 322475-13-8 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-(2,3,6,7-tetrahydro-1,1,7,7-tetramethyl-8-phenyl-1H,5H-benzo[ij]quinolizin-9-yl)ethenyl]- (9CI) (CA INDEX NAME)



RN 322475-15-0 HCAPLUS

CN 1H,5H-Benzo[ij]quinolizine, 9,9'-[(2,5-difluoro-1,4-phenylene)di-2,1-ethenediyl]bis[2,3,6,7-tetrahydro-8-methoxy-1,1,7,7-tetramethyl- (9CI) (CA INDEX NAME)



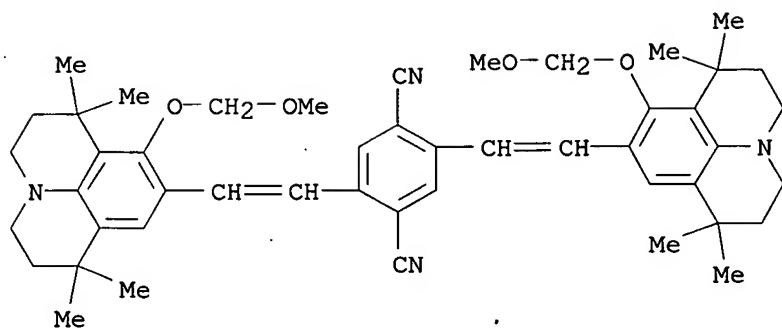
IT 322475-17-2P

RL: DEV (Device component use); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(org. **electroluminescent** devices using julolidyl-substituted styryl compds.)

RN 322475-17-2 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[2,3,6,7-tetrahydro-8-(methoxymethoxy)-1,1,7,7-tetramethyl-1H,5H-benzo[ij]quinolizin-9-yl]ethenyl]- (9CI) (CA INDEX NAME)

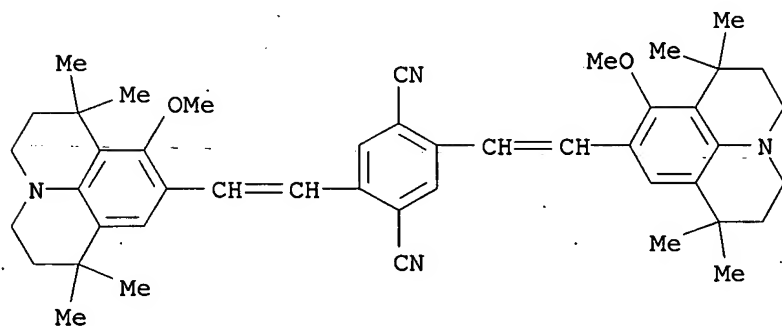


IT 322475-09-2P 322475-14-9P

RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(org. **electroluminescent** devices using julolidyl-substituted styryl compds.)

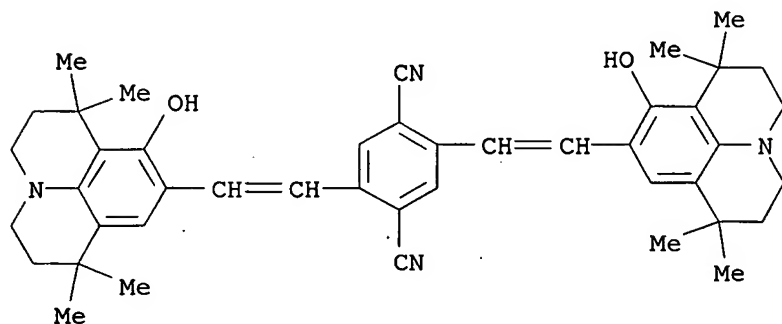
RN 322475-09-2 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-(2,3,6,7-tetrahydro-8-methoxy-1,1,7,7-tetramethyl-1H,5H-benzo[ij]quinolizin-9-yl)ethenyl]- (9CI) (CA INDEX NAME)



RN 322475-14-9 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-(2,3,6,7-tetrahydro-8-hydroxy-1,1,7,7-tetramethyl-1H,5H-benzo[ij]quinolizin-9-yl)ethenyl]- (9CI) (CA INDEX NAME)

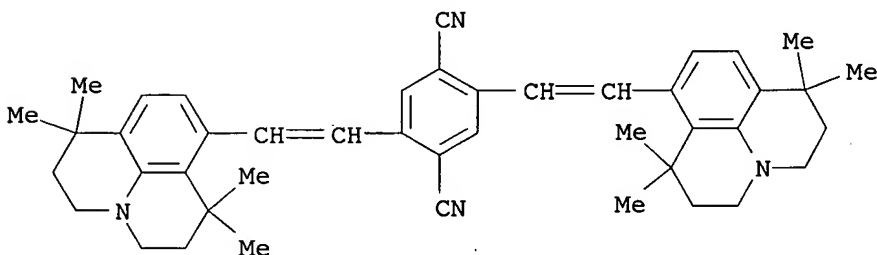


IT 322475-22-9P 322475-23-0P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(org. **electroluminescent** devices using julolidyl-substituted styryl compds.)

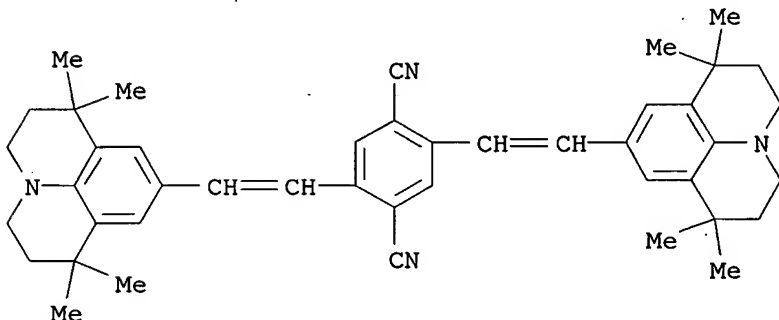
RN 322475-22-9 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-(2,3,6,7-tetrahydro-1,1,7,7-tetramethyl-1H,5H-benzo[*ij*]quinolizin-8-yl)ethenyl]- (9CI) (CA INDEX NAME)



RN 322475-23-0 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-(2,3,6,7-tetrahydro-1,1,7,7-tetramethyl-1H,5H-benzo[*ij*]quinolizin-9-yl)ethenyl]- (9CI) (CA INDEX NAME)



L22 ANSWER 14 OF 27 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:78059 HCAPLUS

DN 134:139023

TI Organic **electroluminescent** device

IN Ishibashi, Tadashi; Ichimura, Mari; Tamura, Shinichiro

PA Sony Corp., Japan

SO Eur. Pat. Appl., 31 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C09K011-06

ICS H05B033-14

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 76

FAN.CNT 1

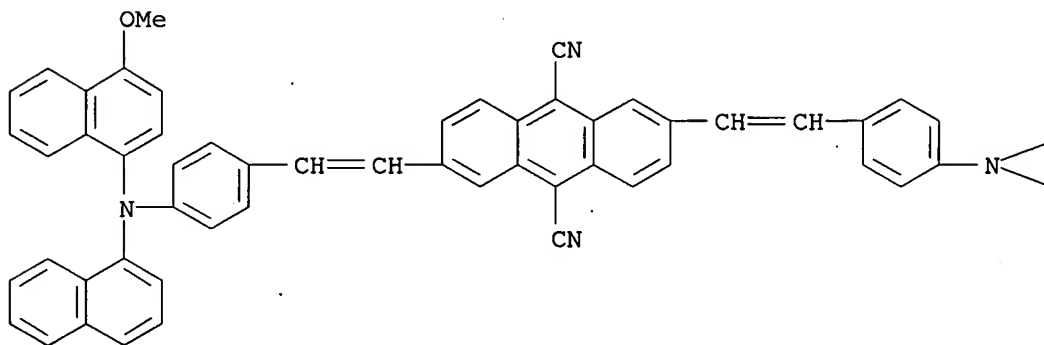
PATENT NO.

KIND DATE

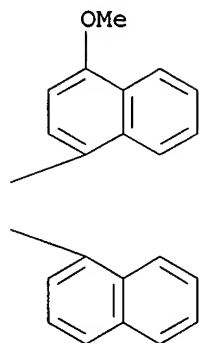
APPLICATION NO. DATE

 PI EP 1072668 A2 20010131 EP 2000-402171 20000728
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO
 TW 463520 B 20011111 TW 2000-89113986 20000713
 US 6495274 B1 20021217 US 2000-624146 20000721
 JP 2001110571 A2 20010420 JP 2000-229659 20000728
 CN 1283072 A 20010207 CN 2000-121795 20000731
 PRAI JP 1999-216308 A 19990730
 OS MARPAT 134:139023
 AB Org. **electroluminescent** devices comprising an org. layer, which
 contains at least one distyryl compd. R1R2N-p-C6H4-CH:CHXCH:CH-p-C6H4-
 NR3R4 [R1,4 = H, or (un)substituted aryl or naphthyl; X = cyano, nitro or
 halo substituted anthracene].
 ST org **electroluminescent** device distyryl compd
 IT **Electroluminescent** devices
 (org. **electroluminescent** device)
 IT 2085-33-8, Aluminum tris(8-hydroxyquinolinato) 7439-95-4, Magnesium,
 uses 7440-22-4, Silver, uses 65181-78-4, TPD 123847-85-8,
 .alpha.-NPD 321709-38-0 321709-39-1
 321709-41-5 321709-42-6 321709-44-8
 RL: DEV (Device component use); USES (Uses)
 (org. **electroluminescent** device)
 IT 321709-36-8
 RL: DEV (Device component use); USES (Uses)
 (org. **electroluminescent** devices employing distyryl compds.)
 IT 321709-38-0 321709-39-1 321709-41-5
 321709-42-6 321709-44-8
 RL: DEV (Device component use); USES (Uses)
 (org. **electroluminescent** device)
 RN 321709-38-0 HCAPLUS
 CN 9,10-Anthracenedicarbonitrile, 2,6-bis[2-[4-[(4-methoxy-1-naphthalenyl)-1-
 naphthalenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

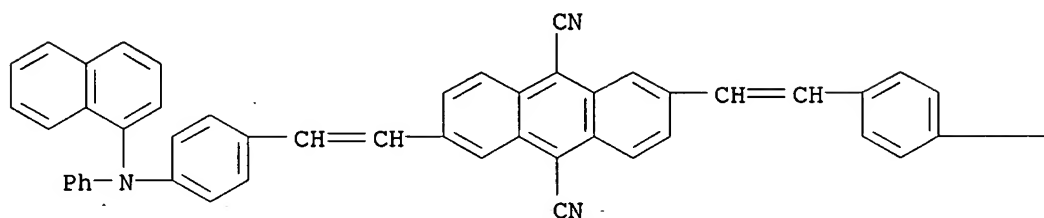


PAGE 1-B

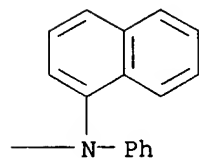


RN 321709-39-1 HCAPLUS
CN 9,10-Anthracenedicarbonitrile, 2,6-bis[2-[4-(1-naphthalenylphenylamino)phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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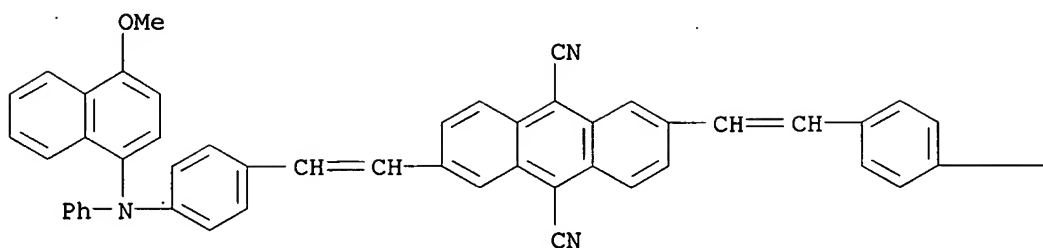


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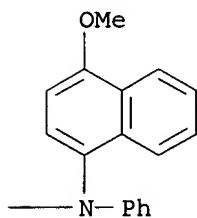


RN 321709-41-5 HCAPLUS
CN 9,10-Anthracenedicarbonitrile, 2,6-bis[2-[4-[(4-methoxy-1-naphthalenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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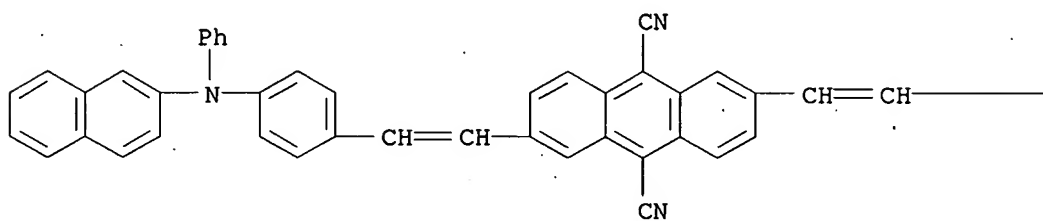


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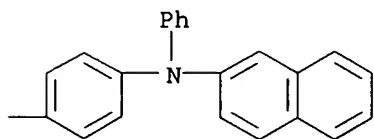


RN 321709-42-6 HCAPLUS
 CN 9,10-Anthracenedicarbonitrile, 2,6-bis[2-[4-(2-methoxy-1-naphthyl)phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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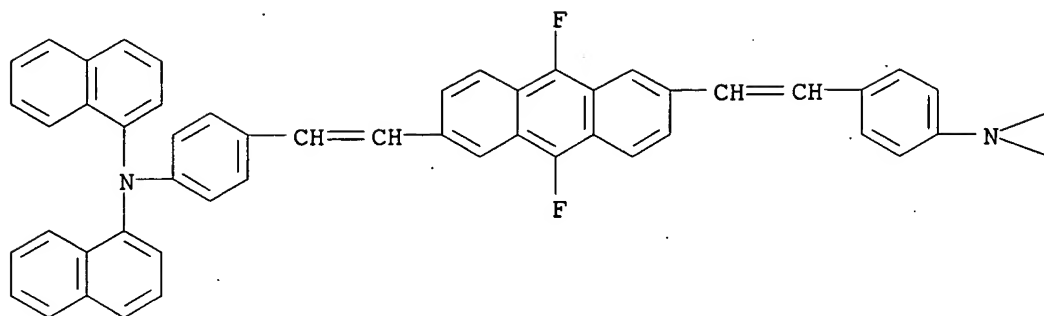


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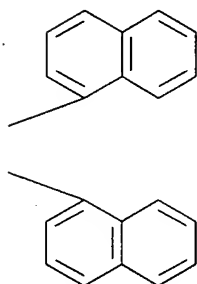


RN 321709-44-8 HCAPLUS
 CN 1-Naphthalenamine, N,N'-[(9,10-difluoro-2,6-anthracenediyl)bis(2,1-ethenediyl-4,1-phenylene)]bis[N-1-naphthalenyl]- (9CI) (CA INDEX NAME)

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IT- 321709-36-8

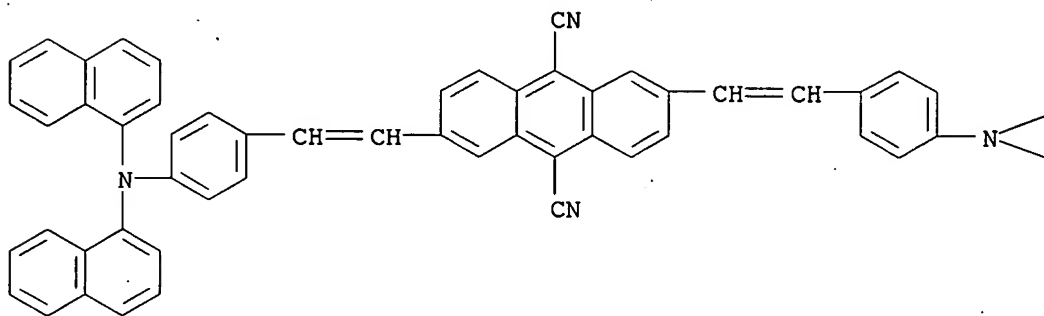
RL: DEV (Device component use); USES (Uses)

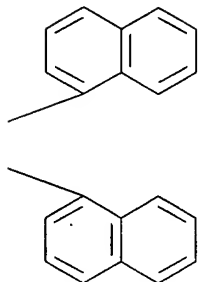
(org. **electroluminescent** devices employing distyryl compds.)

RN 321709-36-8 HCAPLUS

CN 9,10-Anthracenedicarbonitrile, 2,6-bis[2-[4-(di-1-naphthalenylamino)phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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L22 ANSWER 15 OF 27 HCAPLUS COPYRIGHT 2003 ACS
 AN 2000:638389 HCAPLUS
 DN 133:230164
 TI Production method of **electroluminescent** device
 IN Onishima, Yasunori; Tamura, Shinichiro; Asai, Nobutoshi
 PA Sony Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM H05B033-10
 ICS C23C014-12; H05B033-14
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

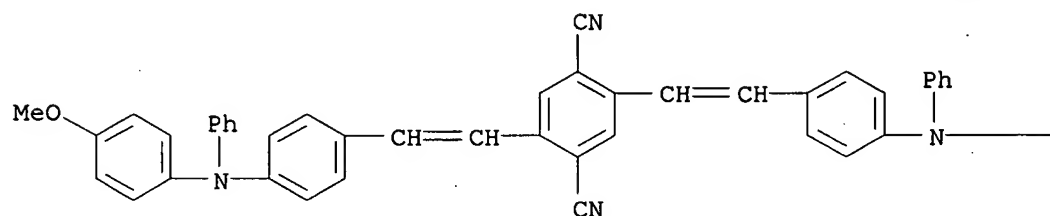
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000252061	A2	20000914	JP 1999-55292	19990303
PRAI	JP 1999-55292		19990303		
AB	The invention refers to a prodn. method of electroluminescent devices wherein a pellets of luminescent material are used to construct the electroluminescent layer so that the device may be produced quickly under vacuum, and without impurities.				
ST	electroluminescent device				
IT	Luminescent substances (electroluminescent ; prodn. method of electroluminescent device)				
IT	Electroluminescent devices (prodn. method of electroluminescent device)				
IT	2085-33-8, Aluminum tris(8-hydroxyquinolinato) 50926-11-9, ITO 124729-98-2 232948-26-4 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (prodn. method of electroluminescent device)				
IT	123847-85-8, .alpha.-NPD RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (.alpha.-NPD; prodn. method of electroluminescent device)				
IT	232948-26-4 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (prodn. method of electroluminescent device)				

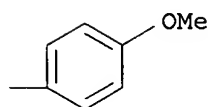
RN 232948-26-4 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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L22 ANSWER 16 OF 27 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:585508 HCAPLUS

DN 133:185625

TI **Electroluminescent bis(aminostyryl)benzene compounds, their synthetic intermediates, and manufacture of the compounds**

IN Ichimura, Mari; Tamura, Shinichiro; Ishibashi, Tadashi; Takada, Kazunori

PA Sony Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 148 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09B023-00

ICS C09B023-00; C07C211-56; C07C217-92; C07C223-06; C07C253-30;

C07C255-51; C07F009-40; C07F009-54; C09K011-06; H05B033-14

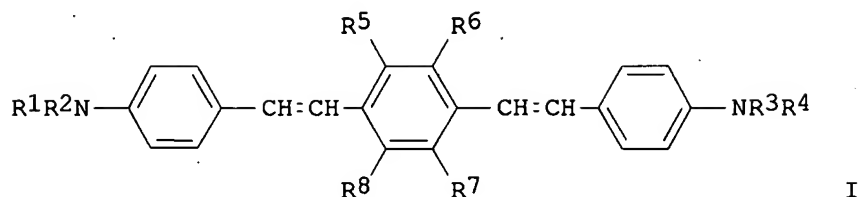
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 41

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000230132	A2	20000822	JP 1999-312069	19991102
	US 6337167	B1	20020108	US 1999-455724	19991206
	US 6525212	B1	20030225	US 2000-704960	20001102
	US 2003060652	A1	20030327	US 2002-228019	20020826
	US 2003069437	A1	20030410	US 2002-227671	20020826
	US 2003073863	A1	20030417	US 2002-227711	20020826
PRAI	JP 1998-347561	A	19981207		
	JP 1999-312069	A	19991102		
	US 1999-455724	A2	19991206		
	US 2000-704960	A3	20001102		
OS	MARPAT 133:185625				

GI



- AB The bis(aminostyryl)benzenes are those represented as I (R1-R4 = aryls; R5-R8 involves cyano, NO₂, halogen; other Markush structures corresponding to the compds. are also claimed). The compds. are manufd. by Wittig-Horner reaction or Wittig reaction of the claimed intermediates and the intermediates may be manufd. by coupling reaction. The compds. showing yellow to red color **electroluminescence** are suitable for display device.
- ST yellow red **electroluminescence** bisaminostyrylbenzene manuf; **electroluminescent** device bisaminostyrylbenzene; Wittg Horner reaction bisaminostyrylbenzene
- IT Wittig reaction
(Wittig-Horner reaction; for manuf. of bis(aminostyryl)benzenes showing yellow to red **electroluminescence** for display device)
- IT Coupling reaction
Wittig reaction
(for manuf. of bis(aminostyryl)benzenes showing yellow to red **electroluminescence** for display device)
- IT **Electroluminescent** devices
(manuf. of bis(aminostyryl)benzenes showing yellow to red **electroluminescence** for display device)
- IT 62-53-3, Benzenamine, reactions 603-35-0, Triphenylphosphine, reactions 288627-04-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(for manuf. of bis(aminostyryl)benzenes showing yellow to red **electroluminescence** for display device)
- IT 4316-52-3P 4316-53-4P 20440-94-2P 20440-95-3P 42906-19-4P
89115-20-8P 89115-21-9P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; manuf. of bis(aminostyryl)benzenes showing yellow to red **electroluminescence** for display device)
- IT 603-34-9 4181-05-9 4316-50-1 4316-51-2 36809-23-1 61231-45-6
87755-82-6 131660-61-2 138310-87-9 178477-23-1 288626-94-8
288626-95-9 288626-96-0 288626-97-1 288626-98-2 288626-99-3
288627-00-9 288627-01-0 288627-02-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(intermediate; manuf. of bis(aminostyryl)benzenes showing yellow to red **electroluminescence** for display device)
- IT 251101-60-7P 251349-04-9P 253868-17-6P
253868-91-6P 288626-78-8P 288626-79-9P
288626-80-2P 288626-81-3P 288626-82-4P
288626-83-5P 288626-84-6P 288626-85-7P
288626-86-8P 288626-87-9P 288626-88-0P

288626-89-1P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(manuf. of bis(aminostyryl)benzenes showing yellow to red electroluminescence for display device)

IT **288626-90-4 288626-91-5 288626-92-6**
288626-93-7

RL: TEM (Technical or engineered material use); USES (Uses)
(manuf. of bis(aminostyryl)benzenes showing yellow to red electroluminescence for display device)

IT **251101-60-7P 251349-04-9P 253868-17-6P**
253868-91-6P 288626-78-8P 288626-79-9P
288626-80-2P 288626-81-3P 288626-82-4P
288626-83-5P 288626-84-6P 288626-85-7P
288626-86-8P 288626-87-9P 288626-88-0P
288626-89-1P

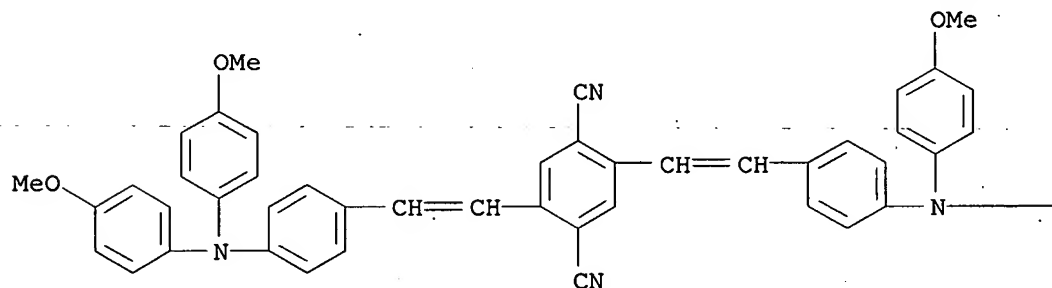
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(manuf. of bis(aminostyryl)benzenes showing yellow to red electroluminescence for display device)

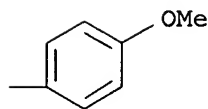
RN 251101-60-7 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[bis(4-methoxyphenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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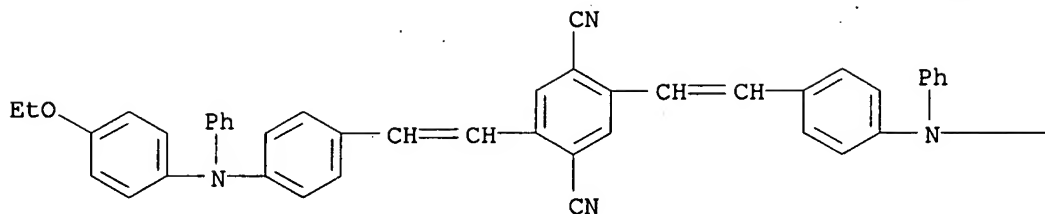
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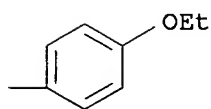
RN 251349-04-9 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[(4-ethoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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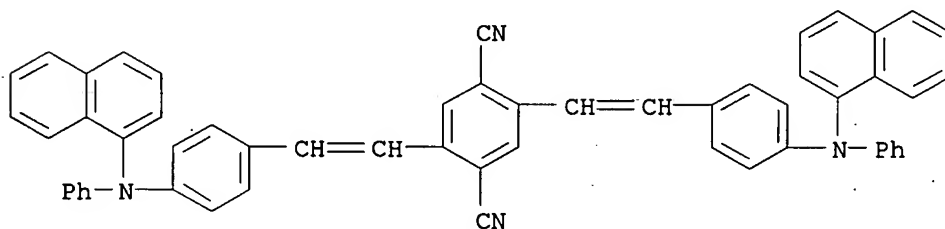


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RN 253868-17-6 HCAPLUS

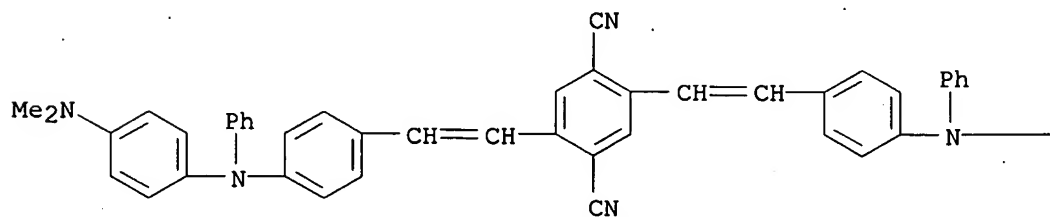
CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-(1-naphthalenylphenylamino)phenyl]ethenyl]- (9CI) (CA INDEX NAME)



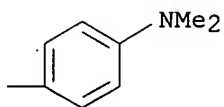
RN 253868-91-6 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[[4-(dimethylamino)phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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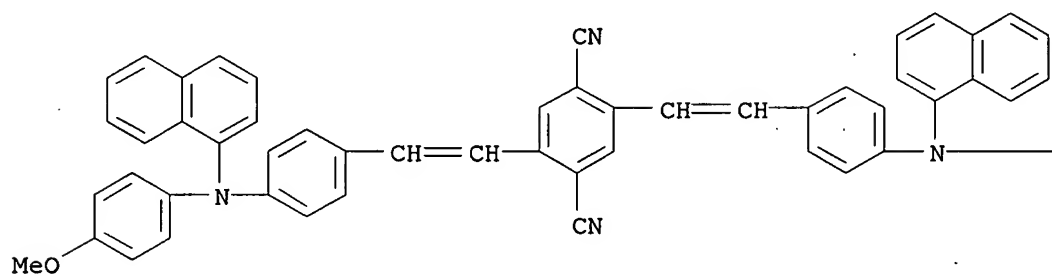
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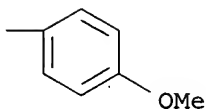
RN 288626-78-8 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[(4-methoxyphenyl)-1-naphthalenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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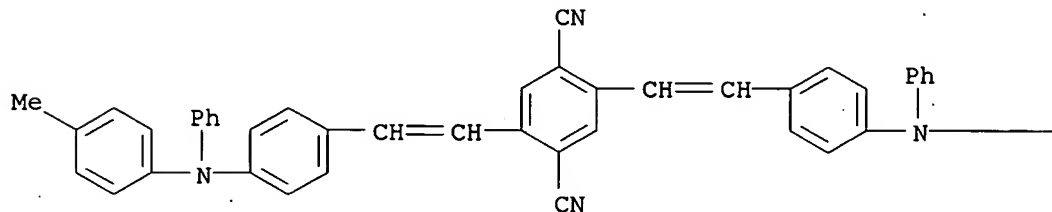
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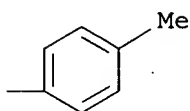
RN 288626-79-9 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[(4-methylphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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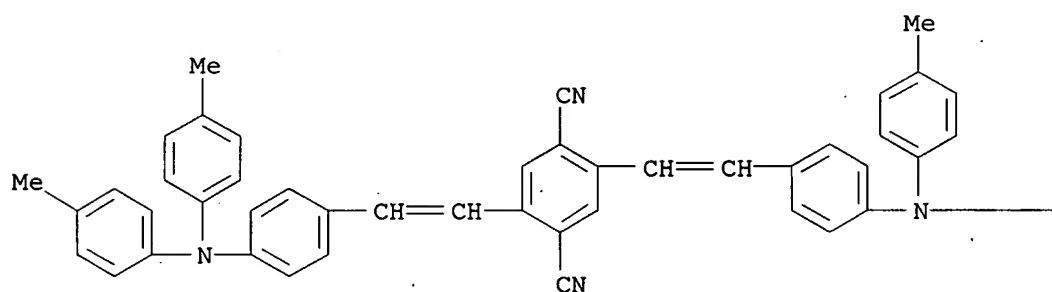
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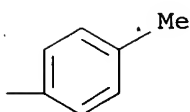
RN 288626-80-2 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[bis(4-methylphenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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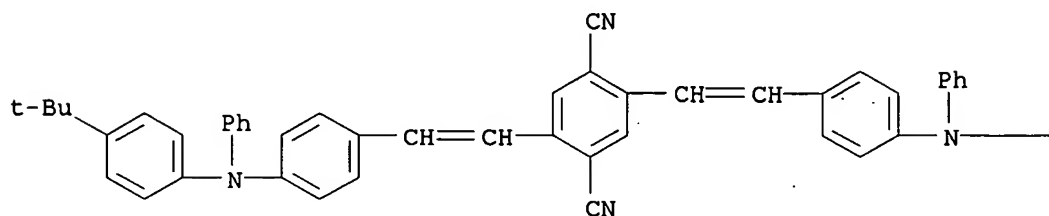
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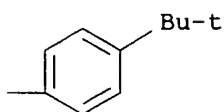
RN 288626-81-3 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[[4-(1,1-dimethylethyl)phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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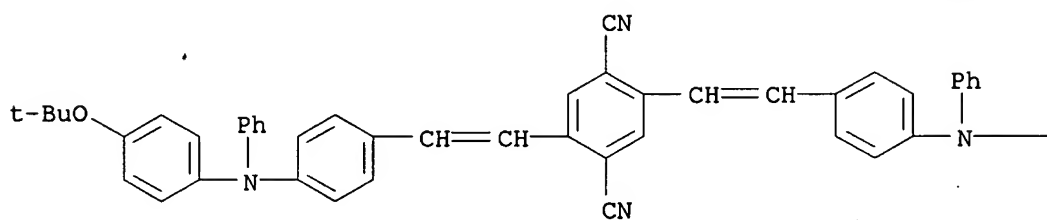
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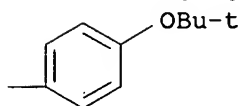
RN 288626-82-4 HCAPLUS

CN .1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[[4-(1,1-dimethylethoxy)phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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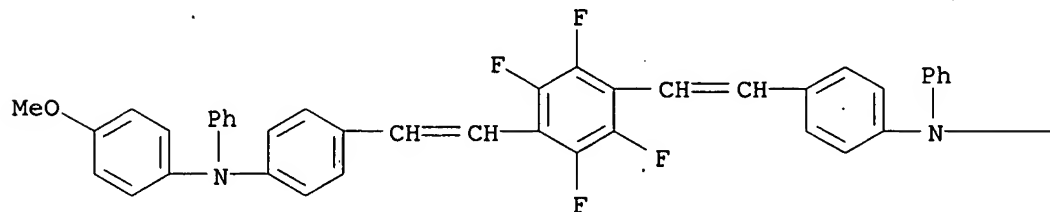
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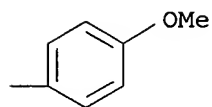
RN 288626-83-5 HCAPLUS

CN Benzenamine, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)di-2,1-ethenediyl]bis[N-(4-methoxyphenyl)-N-phenyl]- (9CI) (CA INDEX NAME)

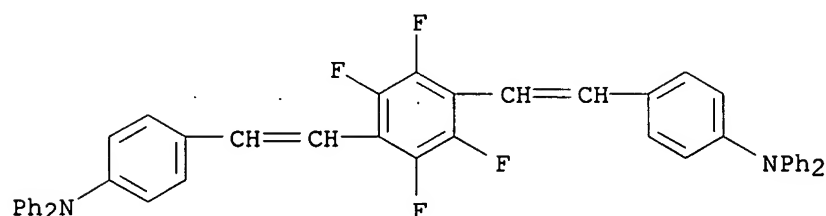
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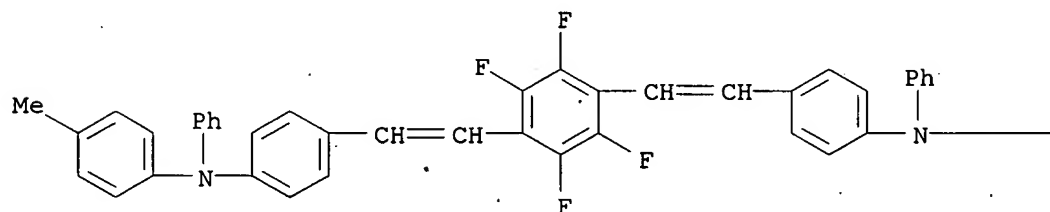


RN 288626-84-6 HCAPLUS
 CN Benzenamine, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)di-2,1-ethenediyl]bis[N,N-diphenyl- (9CI) (CA INDEX NAME)

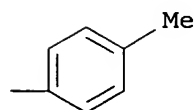


RN 288626-85-7 HCAPLUS
 CN Benzenamine, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)di-2,1-ethenediyl]bis[N-(4-methylphenyl)-N-phenyl- (9CI) (CA INDEX NAME)

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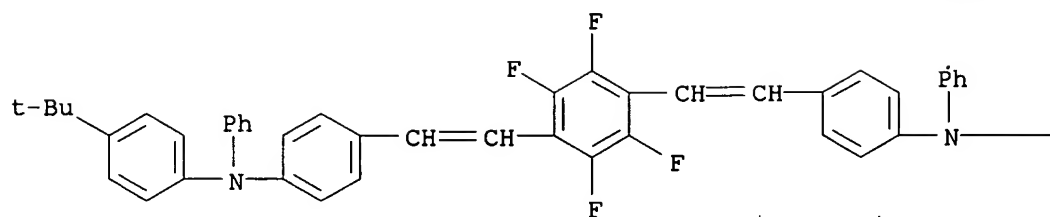


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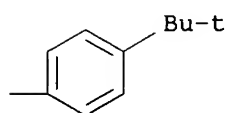


RN 288626-86-8 HCAPLUS
 CN Benzenamine, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)di-2,1-ethenediyl]bis[N-[4-(1,1-dimethylethyl)phenyl]-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

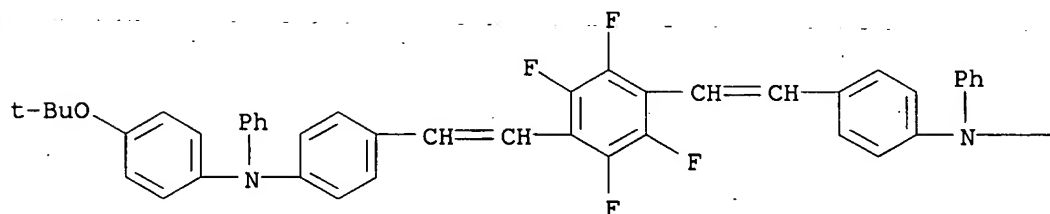


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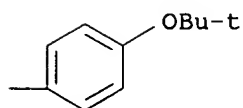


RN 288626-87-9 HCAPLUS
 CN Benzenamine, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)di-2,1-ethenediyl]bis[N-[4-(1,1-dimethylethoxy)phenyl]-N-phenyl- (9CI) (CA INDEX NAME)

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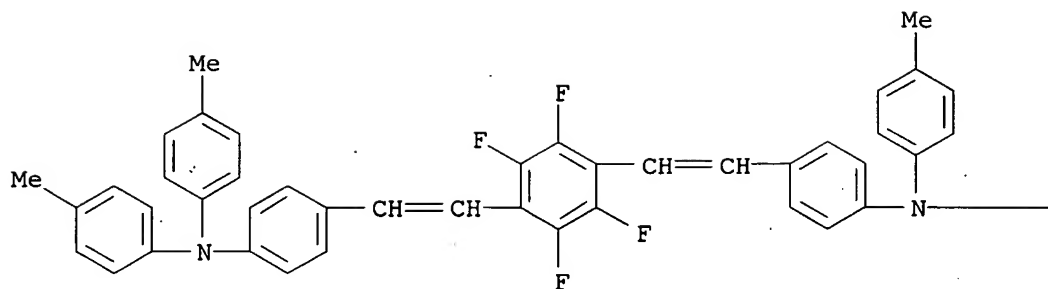


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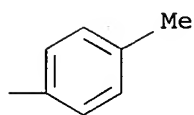


RN 288626-88-0 HCAPLUS
 CN Benzenamine, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)di-2,1-ethenediyl]bis[N,N-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

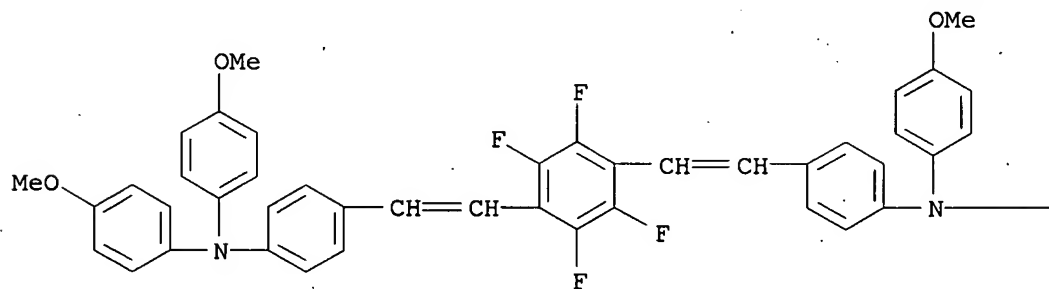


PAGE 1-B

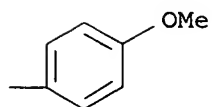


RN 288626-89-1 HCAPLUS
CN Benzenamine, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)di-2,1-ethenediyl]bis[N,N-bis(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

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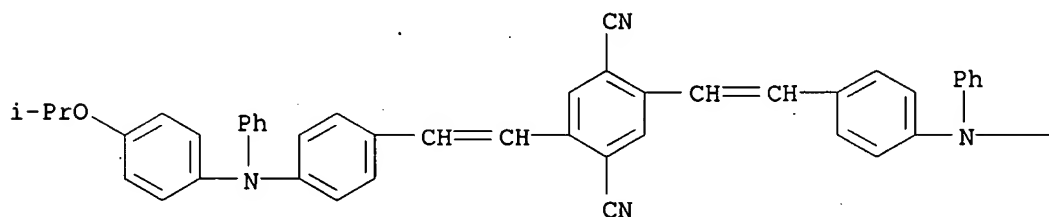
IT 288626-90-4 288626-91-5 288626-92-6
288626-93-7

RL: TEM (Technical or engineered material use); USES (Uses)
(manuf. of bis(aminostyryl)benzenes showing yellow to red
electroluminescence for display device)

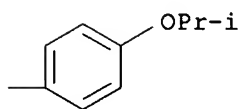
RN 288626-90-4 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[[4-(1-methylethoxy)phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



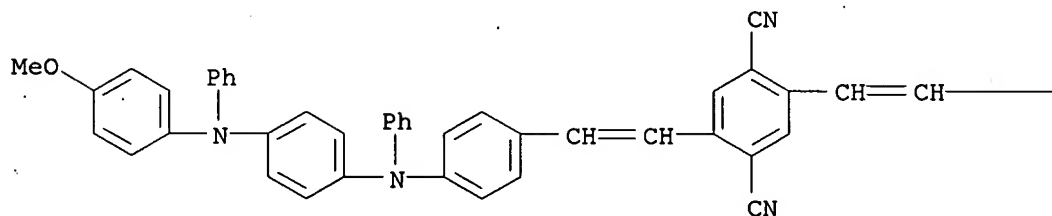
PAGE 1-B



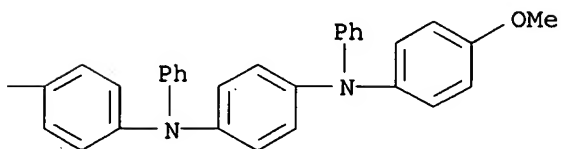
RN 288626-91-5 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[[4-[(4-methoxyphenyl)phenylamino]phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

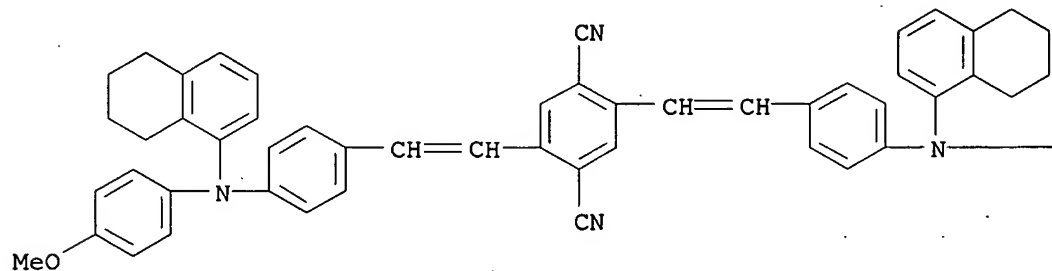


RN 288626-92-6 HCAPLUS

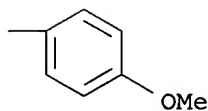
CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[(4-methoxyphenyl)(5,6,7,8-

tetrahydro-1-naphthalenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

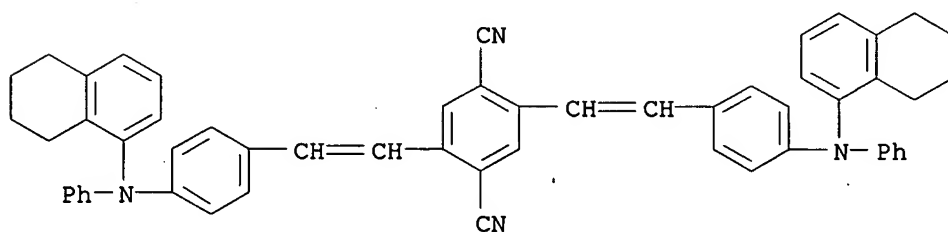


PAGE 1-B



RN 288626-93-7 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[phenyl(5,6,7,8-tetrahydro-1-naphthalenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)



L22 ANSWER 17 OF 27 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:205900 HCAPLUS

DN 132:243753

TI Organic **electroluminescent** device

IN Ishibashi, Tadashi; Ichimura, Mari; Tamura, Shinichiro

PA Sony Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM H05B033-14

ICS C09K011-06; H05B033-22

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related

Properties)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000091074	A2	20000331	JP 1998-258459	19980911
PRAI	JP 1998-258459		19980911		
OS	MARPAT 132:243753				
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB An org. **electroluminescent** device comprises a distyryl **electroluminescent** material represented by I or II [R1-4 = aryl group represented by III [at least one of R13-17 is alkoxy, alkyl, amino, and alkylamino groups]; at least one of R5-12 is cyano, nitro, and halogen groups; at least one of R18-25 is cyano, nitro, and halogen groups].

ST org **electroluminescent** device distyryl compd

IT **Electroluminescent** devices
(org. **electroluminescent** device)

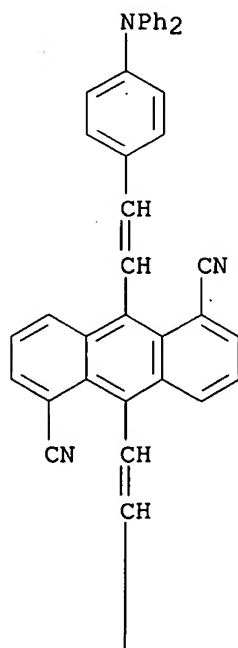
IT **261632-47-7 261632-49-9**
RL: DEV (Device component use); USES (Uses)
(org. **electroluminescent** device)

IT **261632-47-7 261632-49-9**
RL: DEV (Device component use); USES (Uses)
(org. **electroluminescent** device)

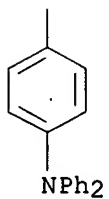
RN 261632-47-7 HCAPLUS

CN 1,5-Anthracenedicarbonitrile, 9,10-bis[2-[4-(diphenylamino)phenyl]ethenyl]-
(9CI) (CA INDEX NAME)

PAGE 1-A

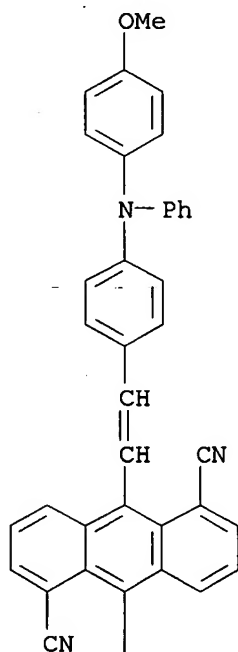


PAGE 2-A

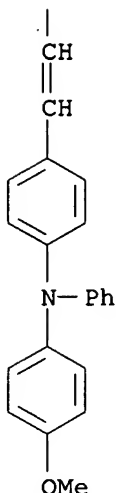


RN 261632-49-9 HCAPLUS
CN 1,5-Anthracenedicarbonitrile, 9,10-bis[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L22 ANSWER 18 OF 27 HCAPLUS COPYRIGHT 2003 ACS
 AN 2000:205899 HCAPLUS
 DN 132:243752
 TI Organic **electroluminescent** device
 IN Ishibashi, Tadashi; Ichimura, Mari; Tamura, Shinichiro
 PA Sony Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM H05B033-14
 ICS C09K011-06; H05B033-22
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 FAN.CNT 1

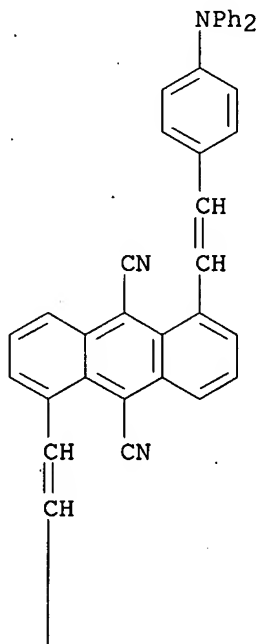
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000091073	A2	20000331	JP 1998-258458	19980911
PRAI	JP 1998-258458		19980911		
OS	MARPAT 132:243752				
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

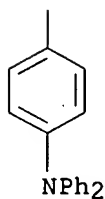
AB An org. **electroluminescent** device comprises a distyryl **electroluminescent** material represented by I or II [R1-4 = aryl group represented by III [at least one of R13-17 is alkoxy, alkyl, amino, and alkylamino groups]; at least one of R5-12 is cyano, nitro, and halogen groups; at least one of R18-25 is cyano, nitro, and halogen groups].
 ST org **electroluminescent** device distyryl compd
 IT **Electroluminescent** devices
 (org. **electroluminescent** device)
 IT 261632-87-5 261632-88-6

RL: DEV (Device component use); USES (Uses)
 (org. **electroluminescent** device)
 IT 261632-87-5 261632-88-6
 RL: DEV (Device component use); USES (Uses)
 (org. **electroluminescent** device)
 RN 261632-87-5 HCAPLUS
 CN 9,10-Anthracenedicarbonitrile, 1,5-bis[2-[4-(diphenylamino)phenyl]ethenyl]-
 (9CI) (CA INDEX NAME)

PAGE 1-A

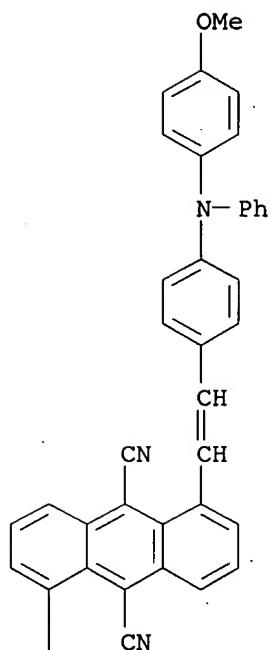


PAGE 2-A

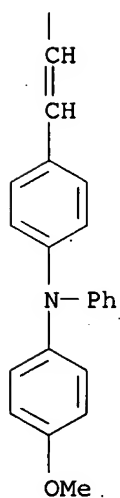


RN 261632-88-6 HCAPLUS
 CN 9,10-Anthracenedicarbonitrile, 1,5-bis[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L22 ANSWER 19 OF 27 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:43387 HCAPLUS

DN 132:100536

TI Compound involving styryl-type repeating unit, manufacture of the compound, and blue light-emitting **electroluminescent** device using the polymer

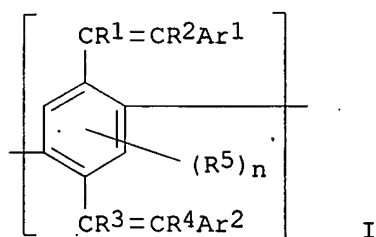
IN Igarashi, Tatsuya

PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C08G061-10
 ICS C08G061-02; C09K011-06; H05B033-14
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 35, 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000017057	A2	20000118	JP 1999-118266	19990426
	US 6210817	B1	20010403	US 1999-301120	19990428
PRAI	JP 1998-120842	A	19980430		

GI



AB The compd., preferably polymer, involves .gtoreq.2 repeating unit I [R1-R4 = H, substituent; R5 = substituent; n = 0-2; Ar1, Ar2 = (hetero)aryl]. The **electroluminescent** device has laminated org. substance layer contg. the compd. The compd. is prepd. by generating CC bond by using a Pd catalyst, e.g., reaction of a dibromide and a boric acid deriv. in the presence of Pd-C.

ST styryl compd polymer org **electroluminescent** device; boric acid deriv dibromide reaction; palladium catalyst dibromide borate reaction

IT **Electroluminescent** devices

Polymerization catalysts

(prepn. of styryl polymer by using palladium catalyst for blue light-emitting **electroluminescent** device)

IT 7440-05-3, Palladium, uses

RL: CAT (Catalyst use); USES (Uses)

(polymn. catalysts; prepn. of styryl polymer by using palladium catalyst for blue light-emitting **electroluminescent** device)

IT 254755-22-1P 254755-23-2P **254755-25-4P** 254755-26-5P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(prepn. of styryl polymer by using palladium catalyst for blue light-emitting **electroluminescent** device)

IT **254755-25-4P**

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(prepn. of styryl polymer by using palladium catalyst for blue light-emitting **electroluminescent** device)

RN 254755-25-4 HCAPLUS

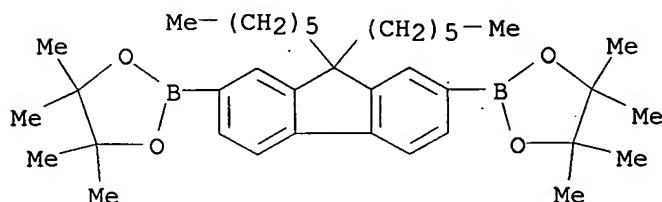
CN Benzenamine, 4,4'-[(2,5-dibromo-1,4-phenylene)di-2,1-ethenediyl]bis[N,N-

diphenyl-, polymer with 2,2'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis[4,4,5,5-tetramethyl-1,3,2-dioxaborolane] (9CI) (CA INDEX NAME)

CM 1

CRN 254755-24-3

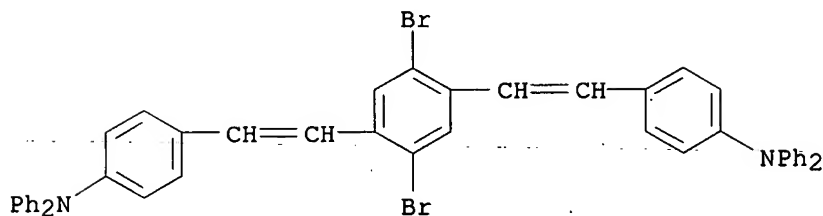
CMF C37 H56 B2 O4



CM 2

CRN 214626-73-0

CMF C46 H34 Br2 N2



L22 ANSWER 20 OF 27 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:34393 HCAPLUS

DN 132:85754

TI Organic electroluminescent component

IN Ishibashi, Yoshi; Ichimura, Mari; Tamura, Shinichiro

PA Sony Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM H05B033-14

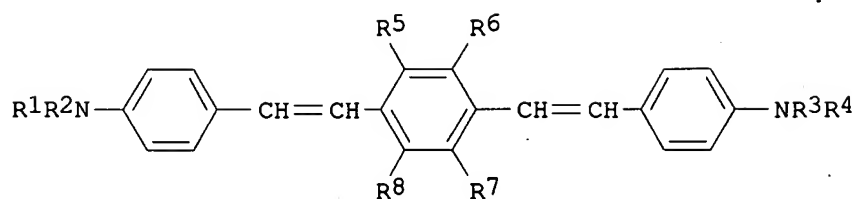
ICS H05B033-22

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000012225	A2	20000114	JP 1998-180580	19980626
	US 6228514	B1	20010508	US 1999-339369	19990624
	TW 469291	B	20011221	TW 1999-88110778	19990625
	KR 2000006490	A	20000125	KR 1999-24404	19990626
PRAI	JP 1998-180580	A	19980626		

OS MARPAT 132:85754
GI



AB The invention refers to an org. **electroluminescent** device, suitable for use in flat panel displays such as computer monitors and TV screens, which contains the di-styryl compd. I [R1-4 = Ph, where at least one is substituted with at least one (un)satd. alkoxyl, or alkyl; and R5-8 = H, cyano, nitro or halo], as an **electroluminescent** material for red **luminescence**.

ST org **electroluminescent** device red **luminescence**

IT **Electroluminescent** devices

Optical imaging devices

(org. **electroluminescent** component)

IT 90-30-2, .alpha.-Naphthylphenylamine 2085-33-8, Tris(8-hydroxyquinolate) aluminum 7439-95-4, Magnesium, uses 7440-22-4, Silver, uses 50926-11-9, ITO 65181-78-4, TPD **253868-91-6**

RL: DEV (Device component use); USES (Uses)

(org. **electroluminescent** component)

IT **253868-91-6**

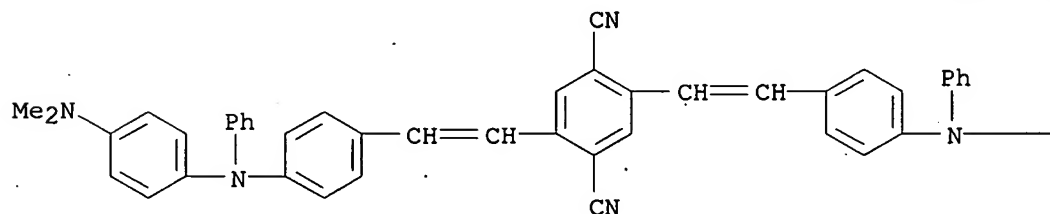
RL: DEV (Device component use); USES (Uses)

(org. **electroluminescent** component)

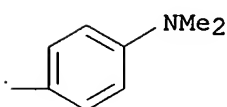
RN 253868-91-6 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[[4-(dimethylamino)phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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L22 ANSWER 21 OF 27 HCAPLUS COPYRIGHT 2003 ACS
 AN 2000:32675 HCAPLUS
 DN 132:85740
 TI Organic **electroluminescent** component
 IN Ishibashi, Yoshi; Ichimura, Mari; Tamura, Shinichiro
 PA Sony Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM H05B033-14
 ICS C09K011-06; H05B033-22
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000012227	A2	20000114	JP 1998-180582	19980626
	US 6242116	B1	20010605	US 1999-339368	19990624
	CN 1241893	A	20000119	CN 1999-111215	19990625
PRAI	JP 1998-180582	A	19980626		
OS	MARPAT 132:85740				
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention refers to an org. **electroluminescent** device, suitable for use in flat panel displays such as computer monitors and TV screens, which contains the di-styryl compd. I [R1-4 = unidentical Ph substituted with at least one (un)satd. alkoxyl, or alkyl; and R5-12 contain at least one cyano, nitro or halo], and/or II [R18-25 contain at least one cyano, nitro, or halo] as an **electroluminescent** material for red **luminescence**.

ST org **electroluminescent** device red **luminescence**

IT **Electroluminescent** devices
 Optical imaging devices
 (org. **electroluminescent** component)

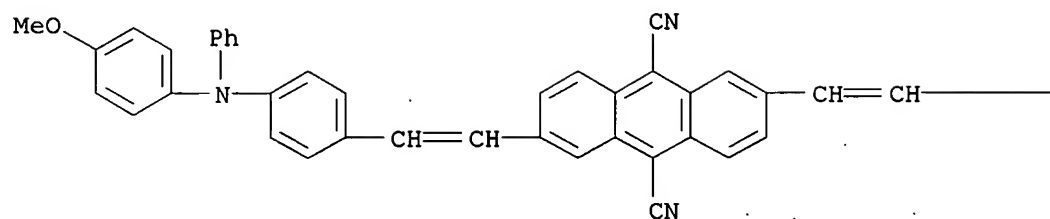
IT 90-30-2, .alpha.-Naphthylphenylamine 2085-33-8, Tris(8-hydroxyquinolate) aluminum 7439-95-4, Magnesium, uses 7440-22-4, Silver, uses 50926-11-9, ITO 65181-78-4, TPD **253868-96-1**
253869-00-0
 RL: DEV (Device component use); USES (Uses)
 (org. **electroluminescent** component)

IT **253868-96-1** **253869-00-0**
 RL: DEV (Device component use); USES (Uses)
 (org. **electroluminescent** component)

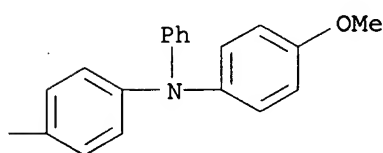
RN **253868-96-1** HCAPLUS

CN 9,10-Anthracenedicarbonitrile, 2,6-bis[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

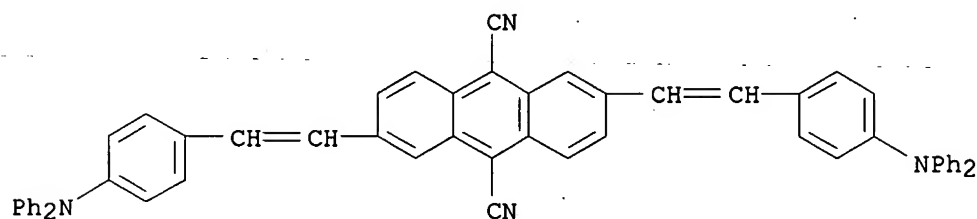
PAGE 1-A



PAGE 1-B



RN 253869-00-0 HCAPLUS
 CN 9,10-Anthracenedicarbonitrile, 2,6-bis[2-[4-(diphenylamino)phenyl]ethenyl]-
 (9CI) (CA INDEX NAME)



L22 ANSWER 22 OF 27 HCAPLUS COPYRIGHT 2003 ACS
 AN 2000:32673 HCAPLUS
 DN 132:85739
 TI Organic **electroluminescent** component
 IN Ishibashi, Yoshi; Ichimura, Mari; Tamura, Shinichiro
 PA Sony Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM H05B033-14
 ICS C09K011-06; H05B033-22
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000012226	A2	20000114	JP 1998-180581	19980626
	US 6265088	B1	20010724	US 1999-339536	19990624

EP 967834 A2 19991229 EP 1999-112272 19990625
 EP 967834 A3 20000112
 EP 967834 B1 20030326

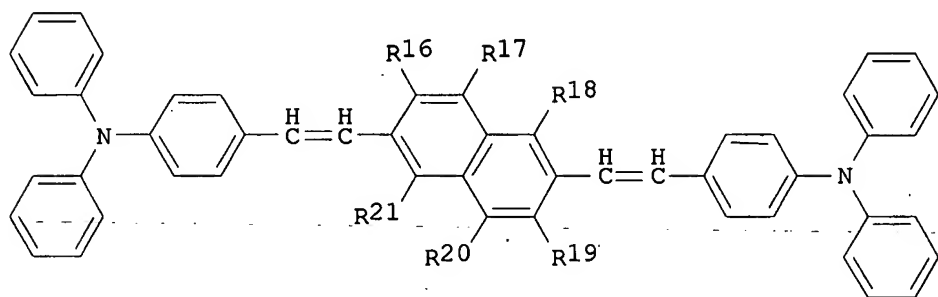
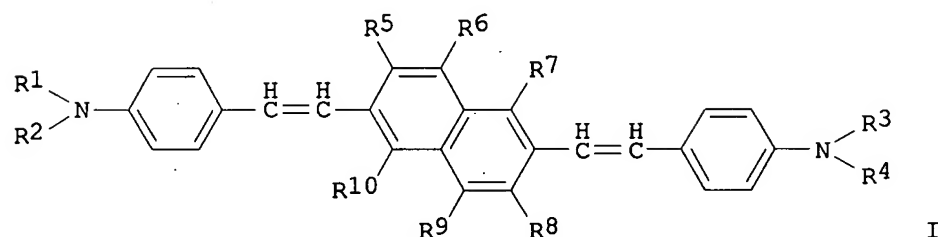
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO

CN 1241892 A 20000119 CN 1999-110984 19990625

PRAI JP 1998-180581 A 19980626

OS MARPAT 132:85739

GI



AB The invention refers to an org. **electroluminescent** device, suitable for use in flat panel displays such as computer monitors and TV screens, which contains the di-styryl compd. I [R1-4 = (un)substituted Ph with and at least one (un)satd. alkoxyl, or alkyl; and R5-10 = H, cyano, nitro or halo], and/or II [R16-21 = H, cyano, nitro, halo] as an **electroluminescent** material for red **luminescence**.

ST org **electroluminescent** device red **luminescence**

IT **Electroluminescent** devices

Optical imaging devices

(org. **electroluminescent** component)

IT 90-30-2, .alpha.-Naphthylphenylamine 2085-33-8, Tris(8-hydroxyquinolate) aluminum 7439-95-4, Magnesium, uses 7440-22-4, Silver, uses 50926-11-9, ITO 65181-78-4, TPD 253868-44-9 253868-45-0

RL: DEV (Device component use); USES (Uses)

(org. **electroluminescent** component)

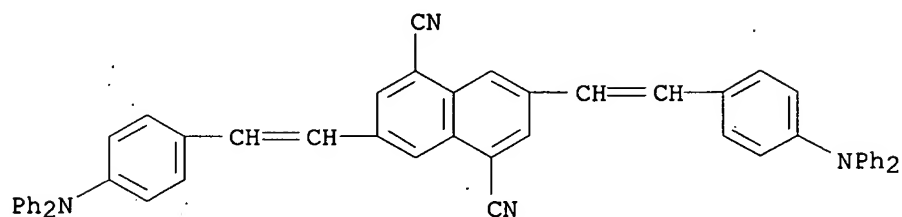
IT 253868-44-9 253868-45-0

RL: DEV (Device component use); USES (Uses)

(org. **electroluminescent** component)

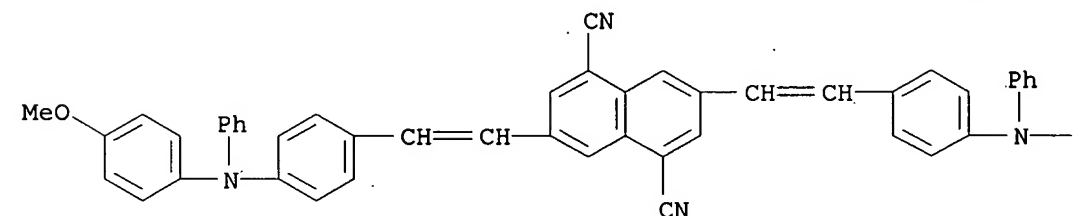
RN 253868-44-9 HCAPLUS

CN 1,5-Naphthalenedicarbonitrile, 3,7-bis[2-[4-(diphenylamino)phenyl]ethenyl]-
(9CI) (CA INDEX NAME)



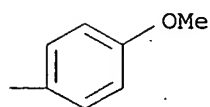
RN 253868-45-0 HCAPLUS

CN 1,5-Naphthalenedicarbonitrile, 3,7-bis[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)



PAGE 1-A

PAGE 1-B



L22 ANSWER 23 OF 27 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:32671 HCAPLUS

DN 132:85738

TI Organic **electroluminescent** component

IN Ishibashi, Yoshi; Ichimura, Mari; Tamura, Shinichiro

PA Sony Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM H05B033-14

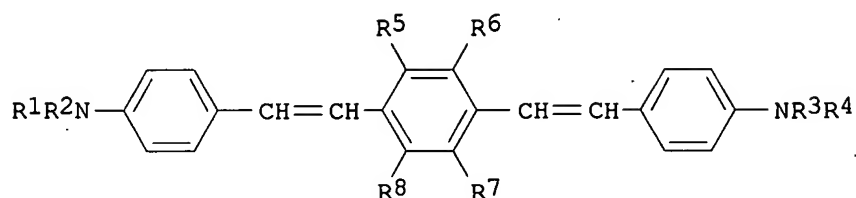
ICS C09K011-06; H05B033-22

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 2000012224 A2 20000114 JP 1998-180579 19980626
 PRAI JP 1998-180579 19980626
 OS MARPAT 132:85738
 GI



AB The invention refers to an org. **electroluminescent** device, suitable for use in flat panel displays such as computer monitors TV screens, which contains the di-styryl compd. I [R1,4 = (un)substituted Ph with at least one (un)satd. alkoxy, or alkyl; R2,3 = (un)substituted naphthalene with at least one (un)satd. alkoxy, or alkyl; and R5-8 contain at least one cyano, nitro or halo], as an **electroluminescent** material for yellow **luminescence**.

ST org **electroluminescent** device yellow **luminescence**

IT Optical imaging devices
 (org. **electroluminescent** component)

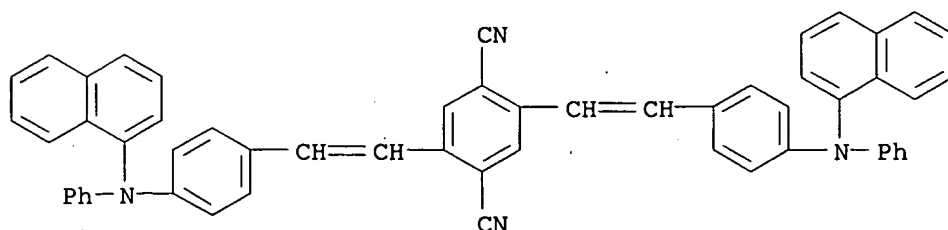
IT **Electroluminescent** devices
 (org.; org. **electroluminescent** component)

IT 90-30-2, .alpha.-Naphthylphenylamine 2085-33-8, Tris(8-hydroxyquinolate) aluminum 7439-95-4, Magnesium, uses 7440-22-4, Silver, uses 50926-11-9, ITO 65181-78-4, TPD **253868-17-6**
 RL: DEV (Device component use); USES (Uses)
 (org. **electroluminescent** component)

IT **253868-17-6**
 RL: DEV (Device component use); USES (Uses)
 (org. **electroluminescent** component)

RN 253868-17-6 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-(1-naphthalenylphenylamino)phenyl]ethenyl]- (9CI) (CA INDEX NAME)

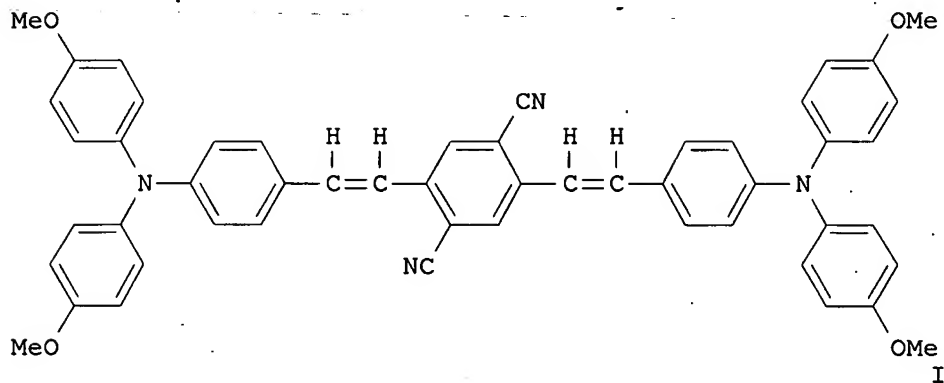


L22 ANSWER 24 OF 27 HCAPLUS COPYRIGHT 2003 ACS
 AN 1999:756253. HCAPLUS
 DN 132:16983
 TI Organic **electroluminescent** device stably emitting high luminance red light
 IN Ishibashi, Yoshi; Ichimura, Mari; Tamura, Shinichiro

PA Sony Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM H05B033-14
 ICS C09K011-06; H05B033-22
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 25

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11329731	A2	19991130	JP 1998-134136	19980518
	EP 960927	A2	19991201	EP 1999-109697	19990517
	EP 960927	A3	20000322		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6312838	B1	20011106	US 1999-312772	19990517
	CN 1238656	A	19991215	CN 1999-109472	19990518
	US 2001055698	A1	20011227	US 2001-886858	20010621
	US 2002009614	A1	20020124	US 2001-925243	20010808
PRAI	JP 1998-134136	A	19980518		
	US 1999-312772	A1	19990517		
OS	MARPAT 132:16983				
GI					



AB The org. EL device comprises a distyryl compd. I [R1-4 = aryl (X); R9-13 = (un)satd. alkoxy or alkyl; .gtoreq.1 group of R5-8 = cyano, nitro, or halo] as a light-emitting material.

ST org **electroluminescent** device distyryl light emitter

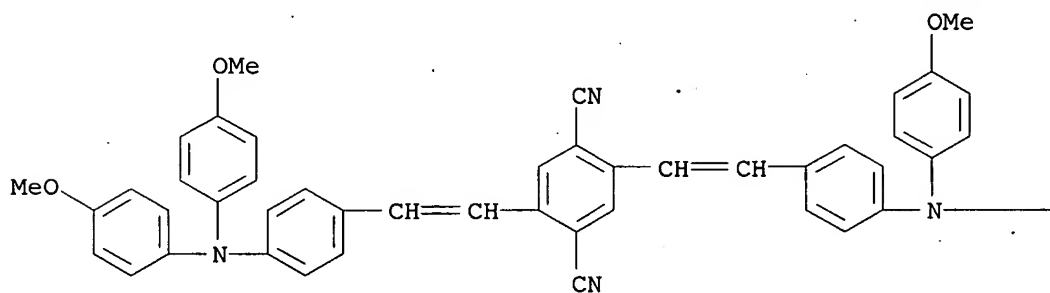
IT **Electroluminescent** devices
 (red light-mitting org. **electroluminescent** device contg. distyryl compd. as light-emitting compd.)

IT 251101-60-7 251101-63-0 251101-76-5
 251101-77-6 251101-78-7 251101-79-8
 251101-81-2

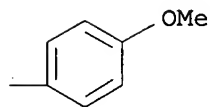
RL: DEV (Device component use); USES (Uses)
 (red light-mitting org. **electroluminescent** device contg.)

distyryl compd. as light-emitting compd.)
 IT 251101-60-7 251101-63-0 251101-76-5
 251101-77-6 251101-78-7 251101-79-8
 251101-81-2
 RL: DEV (Device component use); USES (Uses)
 (red light-mitting org. **electroluminescent** device contg.
 distyryl compd. as light-emitting compd.)
 RN 251101-60-7 HCAPLUS
 CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[bis(4-
 methoxyphenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

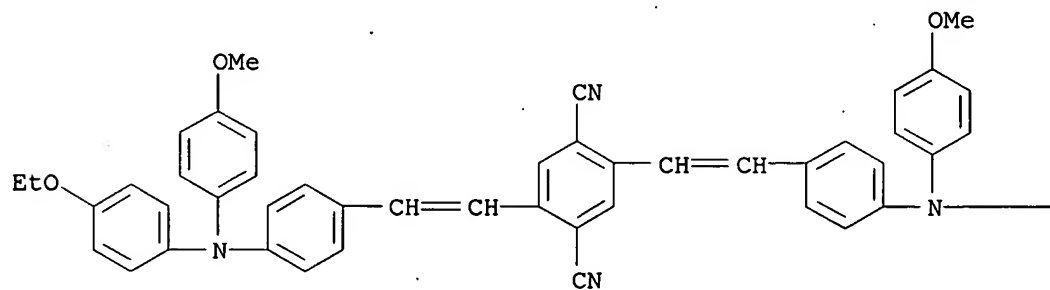


PAGE 1-B

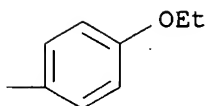


RN 251101-63-0 HCAPLUS
 CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[(4-ethoxyphenyl)(4-
 methoxyphenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

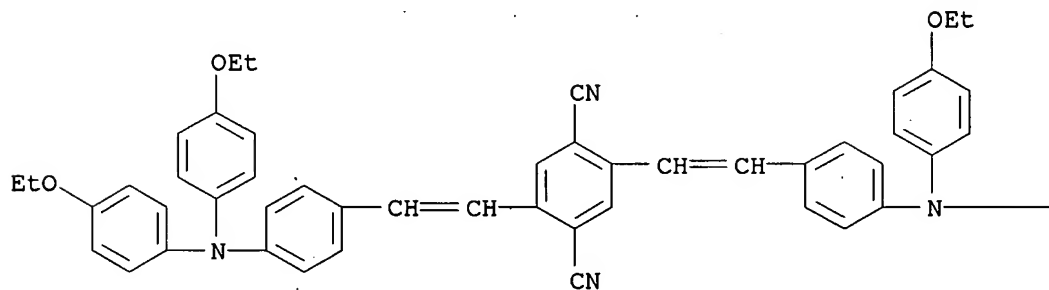


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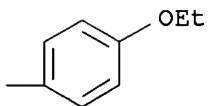


RN 251101-76-5 HCAPLUS
 CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[bis(4-ethoxyphenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

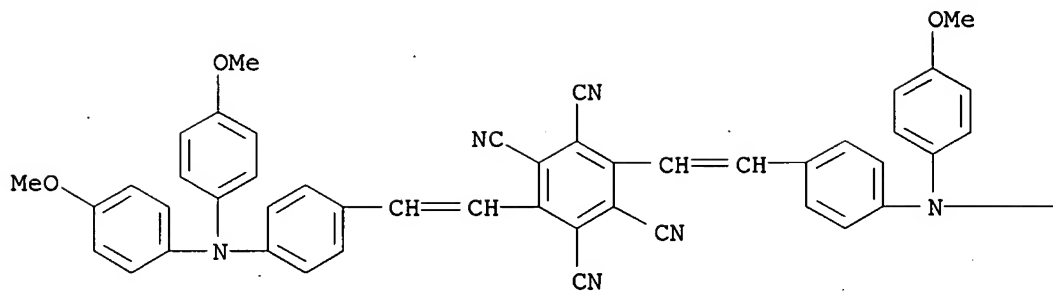


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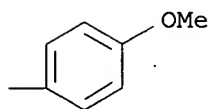


RN 251101-77-6 HCAPLUS
 CN 1,2,4,5-Benzenetetracarbonitrile, 3,6-bis[2-[4-[bis(4-methoxyphenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



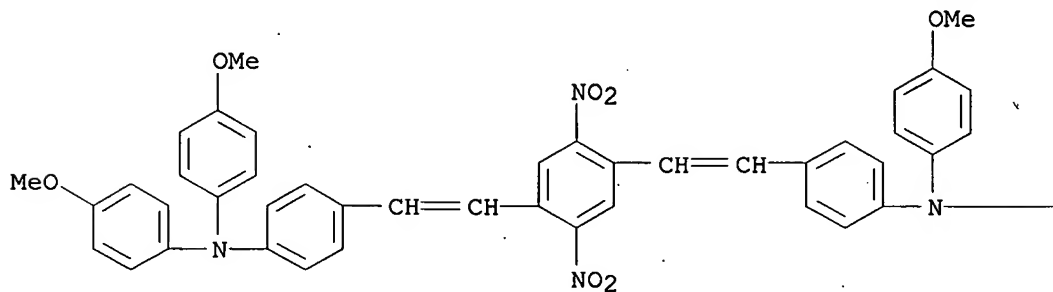
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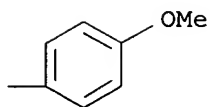
RN 251101-78-7 HCAPLUS

CN Benzenamine, 4,4'-[(2,5-dinitro-1,4-phenylene)di-2,1-ethenediyl]bis[N,N-bis(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



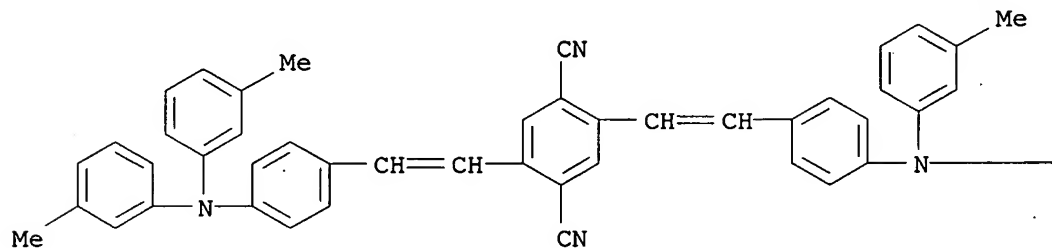
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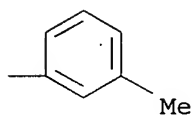
RN 251101-79-8 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[bis(3-methylphenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



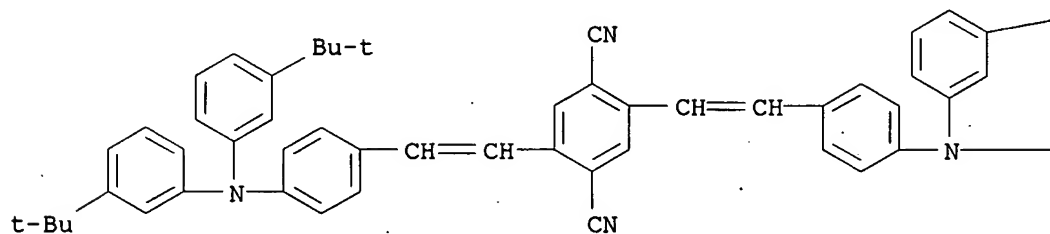
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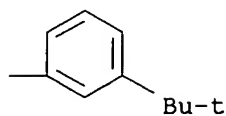
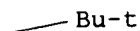
RN 251101-81-2 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[bis(3-(1,1-dimethylethyl)phenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L22 ANSWER 25 OF 27 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:756252 HCAPLUS

DN 132:16982

TI Organic **electroluminescent** device stably emitting high luminance red light

IN Ishibashi, Yoshi; Ichimura, Mari; Tamura, Shinichiro

PA Sony Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM H05B033-14

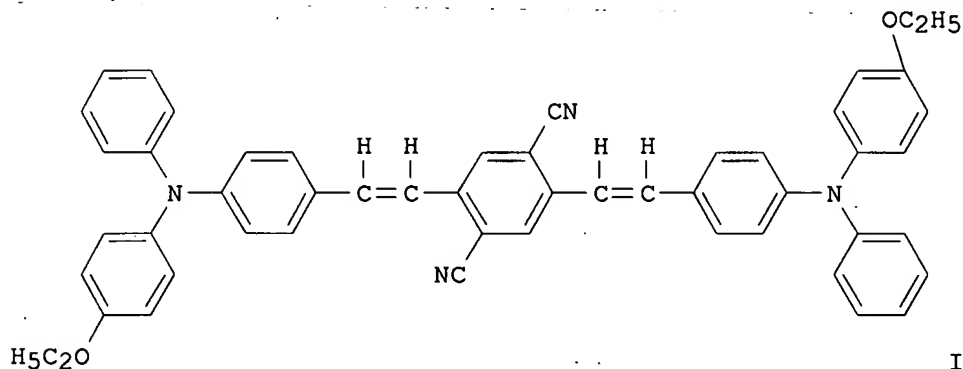
ICS C09K011-06; H05B033-22

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 25

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11329730	A2	19991130	JP 1998-134135	19980518
	TW 423262	B	20010221	TW 1999-88107633	19990511
	US 2001033945	A1	20011025	US 1999-312764	19990517
	US 6410167	B2	20020625		
PRAI	JP 1998-134135	A	19980518		
OS	MARPAT 132:16982				
GI					



AB The org. **EL** device comprises a distyryl compd. I [R1, R4 = Ph; R2, R3 = aryl (X); .gtoreq.1 group of R9-13 = C.gtoreq.2 (un)satd. alkoxy or alkyl; .gtoreq.1 group of R5-8 = cyano, nitro, or halo] as a light-emitting material.

ST org **electroluminescent** device distyryl light emitter

IT **Electroluminescent** devices

(red light-mitting org. **electroluminescent** device contg. distyryl compd. as light-emitting compd.)

IT 251349-04-9 251349-05-0 251349-12-9

251349-13-0 251349-14-1 251349-15-2

251349-27-6

RL: DEV (Device component use); USES (Uses)

(red light-mitting org. **electroluminescent** device contg.
distyryl compd. as light-emitting compd.)

IT 251349-04-9 251349-05-0 251349-12-9
251349-13-0 251349-14-1 251349-15-2
251349-27-6

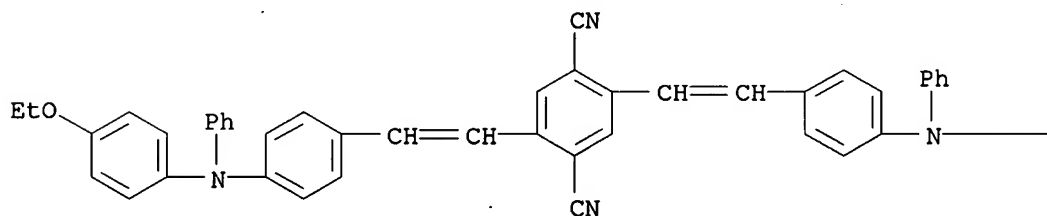
RL: DEV (Device component use); USES (Uses)

(red light-mitting org. **electroluminescent** device contg.
distyryl compd. as light-emitting compd.)

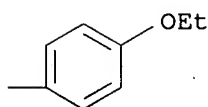
RN 251349-04-9 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[(4-ethoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



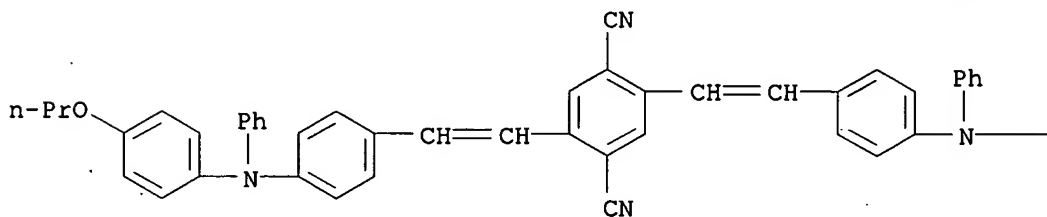
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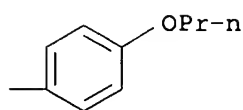
RN 251349-05-0 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[phenyl(4-propoxyphenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



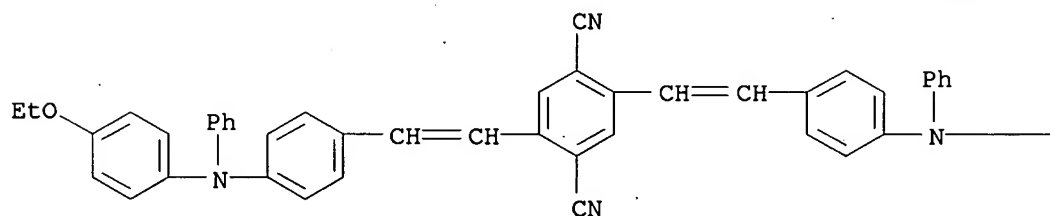
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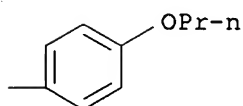
RN 251349-12-9 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2-[2-[4-[(4-ethoxyphenyl)phenylamino]phenyl]ethenyl]-5-[2-[4-[phenyl(4-propoxyphenyl)amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



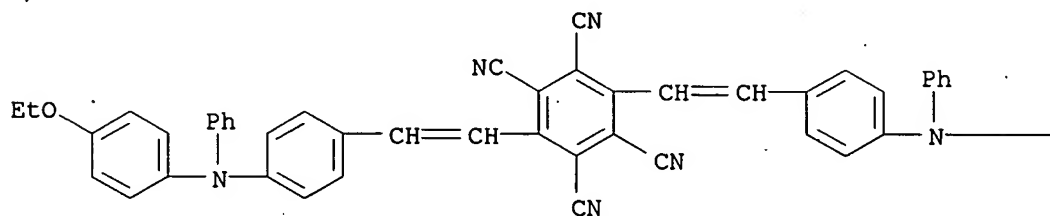
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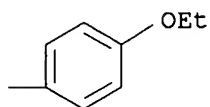
RN 251349-13-0 HCAPLUS

CN 1,2,4,5-Benzenetetracarbonitrile, 3,6-bis[2-[4-[(4-ethoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

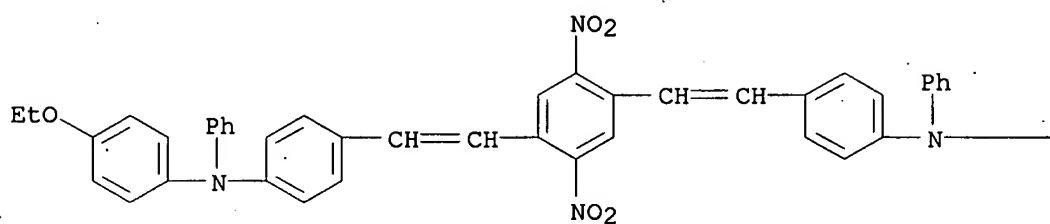


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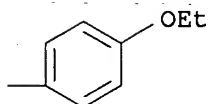


RN 251349-14-1 HCAPLUS
 CN Benzenamine, 4,4'-[(2,5-dinitro-1,4-phenylene)di-2,1-ethenediyl]bis[N-(4-ethoxyphenyl)-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

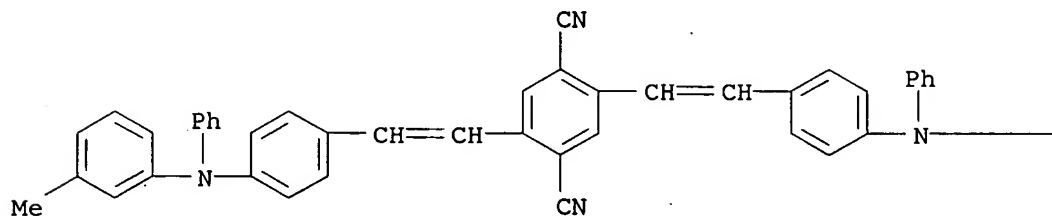


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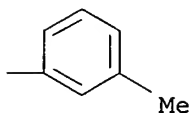


RN 251349-15-2 HCAPLUS
 CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[(3-methylphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

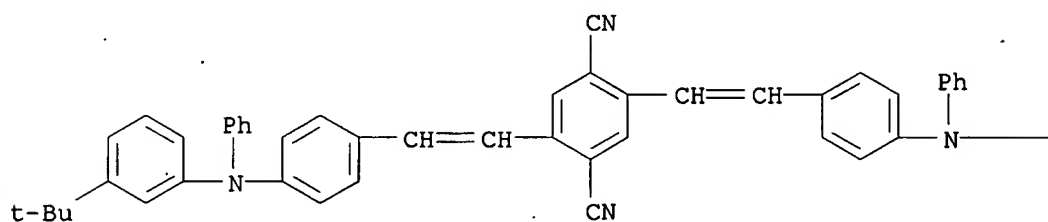


PAGE 1-B

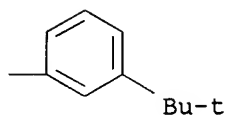


RN 251349-27-6 HCAPLUS
 CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[[3-(1,1-dimethylethyl)phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L22 ANSWER 26 OF 27 HCAPLUS COPYRIGHT 2003 ACS
 AN 1999:638515 HCAPLUS
 DN 131:250223
 TI Organic **electroluminescent** device and its production method
 IN Tamura, Shinichiro; Ishibashi, Tadashi
 PA Sony Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM H05B033-10
 ICS H05B033-14; H05B033-26
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 42, 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11273859	A2	19991008	JP 1998-75348	19980324
	EP 954205	A2	19991103	EP 1999-105697	19990319
	EP 954205	A3	20010704		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO

PRAI JP 1998-75348 A 19980324

AB The invention relates to an org. **electroluminescent** device, suited for use in making a flat panel display, wherein the **electroluminescent** layer is prepd. by employing printing or coating techniques, such as screen printing, spin coating etc., using the coating or printing materials contg. a low mol. wt. org. **electroluminescent** substance.

ST org **electroluminescent** device coating printing

IT Printing (impact)
(flexog.; org. **electroluminescent** device with **electroluminescent** layer formed by printing or coating techniques)

IT **Electroluminescent** devices
(org. **electroluminescent** device with **electroluminescent** layer formed by printing or coating techniques)

IT Coating process
(spin; org. **electroluminescent** device with **electroluminescent** layer formed by printing or coating techniques)

IT 2085-33-8, Al 8q 123847-85-8 124729-98-2 142289-08-5.
232948-26-4

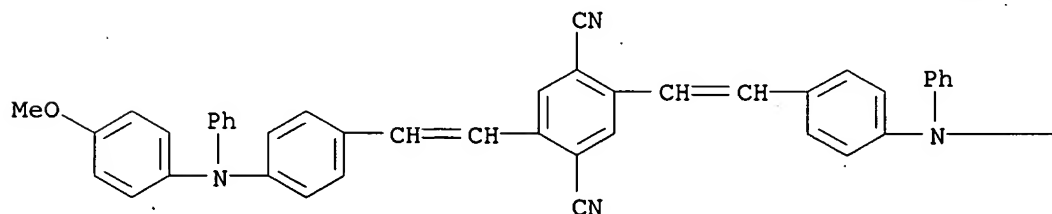
RL: DEV (Device component use); USES (Uses)
(org. **electroluminescent** device with **electroluminescent** layer formed by printing or coating techniques)

IT **232948-26-4**
RL: DEV (Device component use); USES (Uses)
(org. **electroluminescent** device with **electroluminescent** layer formed by printing or coating techniques)

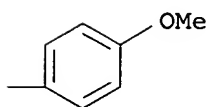
RN 232948-26-4 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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L22 ANSWER 27 OF 27 HCAPLUS COPYRIGHT 2003 ACS
 AN 1999:379147 HCAPLUS
 DN 131:122474
 TI Synthesis of organic **EL** materials with cyano group and evaluation of emission characteristics in organic **EL** devices
 AU Kim, Dong Uk
 CS Dep. Science Education, Taegu National Univ. Education, Taegu, 705-715, S. Korea
 SO Journal of the Korean Chemical Society (1999), 43(3), 315-320
 CODEN: JKCSEZ; ISSN: 1017-2548
 PB Korean Chemical Society
 DT Journal
 LA Korean
 CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 22, 35, 76
 AB Novel **electroluminescent** materials were designed and synthesized. Polymers, PU-BCN, and low molar mass material with the same chromophores, D-BCN, were synthesized. A mol. structure of new chromophore material has bisstyrylbenzene deriv. with cyano groups for electron injection and transport and with phenylamine groups for hole injection and transport. Three devices were used: a device with PU-BCN and D-BCN as an emission layer which is a single-layer device (SL), a device with indium-tin oxide(ITO)/emission layer/MgAg as a DL-E device and a device with ITO/triphenylamine deriv./emission layer/MgAg as a DL-H device. The two emission materials, PU-BCN and D-BCN with the same emission-chromophore were evaluated in high c.d. **EL** emission max. peaks of two material were detected at about 640 nm wavelength of red emission region.
 ST **electroluminescence** org PU BCN chromophore
 IT **Luminescence**
 (of BCN-deriv. **electroluminescent** materials in relation to c.d.)
 IT **Electroluminescent** devices
 (org.; synthesis and evaluation of emission characteristics of)
 IT Polyurethanes, reactions
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (synthesis of org. **electroluminescent** materials contg.)
 IT **232948-25-3P 232948-26-4P**
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
 (org. **electroluminescent** materials; synthesis of)
 IT 68-12-2, reactions 101-68-8 2009-83-8, 6-Chlorohexan-1-ol 4316-51-2
 25069-86-7, Phenol, p-(diphenylamino)- 232948-23-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (synthesis of org. **electroluminescent** materials using)
 IT 87755-82-6P 168124-23-0P 232948-22-0P **232948-24-2P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (synthesis of org. **electroluminescent** materials using)
 IT **232948-25-3P 232948-26-4P**
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
 (org. **electroluminescent** materials; synthesis of)
 RN 232948-25-3 HCAPLUS

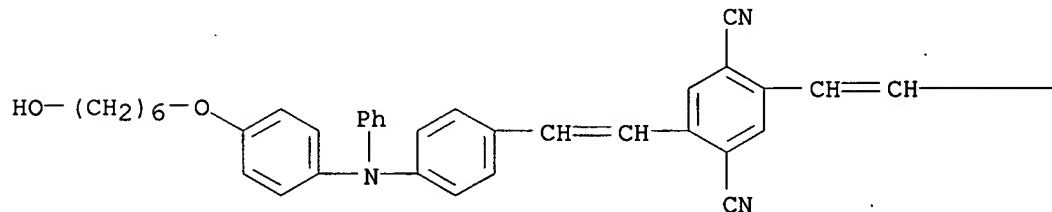
CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[[4-[(6-hydroxyhexyl)oxy]phenyl]phenylamino]phenyl]ethenyl]-, polymer with 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

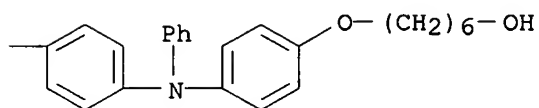
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CMF C60 H58 N4 O4

PAGE 1-A



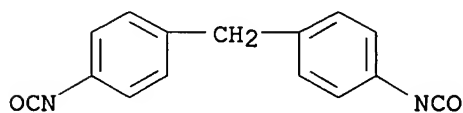
PAGE 1-B



CM 2

CRN 101-68-8

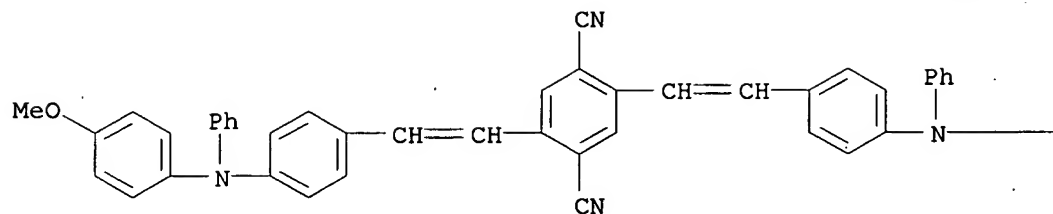
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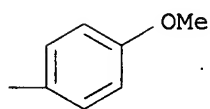
RN 232948-26-4 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT 232948-24-2P

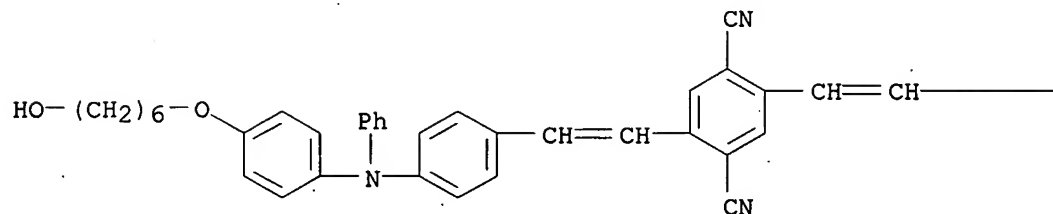
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of org. **electroluminescent** materials using)

RN 232948-24-2 HCAPLUS

CN 1,4-Benzenedicarbonitrile, 2,5-bis[2-[4-[[4-[(6-hydroxyhexyl)oxy]phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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